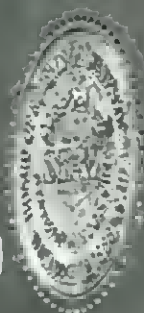


# ***UNDERGRADUATE BULLETIN***

**Regular Session**

***1970-1972***

**STOUT STATE  
UNIVERSITY**



**FOUNDED**

**1893**



# **Catalog of Courses**

## **1970-1972**

**Stout State University**  
Menomonie, Wisconsin 54751

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**Learning**

**Skill**

**Industry**

**Honor**

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# COLLEGE CALENDAR

## Regular Session 1970-71

Monday, September 7	Labor Day
Tuesday, September 8	Faculty and Staff Orientation
Wednesday, September 9	Professional Activities for Staff and Faculty
Thursday, September 10	Registration
Friday, September 11	Classes Convene
Friday, November 6	Midsemester, End of First Nine Weeks
Wednesday, November 25	Thanksgiving Vacation Begins at 1:20 p.m.
Monday, November 30	Classes Resume
Friday, December 18	Christmas Vacation Begins at 1:20 p.m.
Monday, January 4, 1971	Classes Resume
Tuesday, January 19	Last Class for First Semester, 12:30 p.m.
Friday, January 22	Commencement, End of First Semester
Monday, January 25	Registration for Second Semester
Tuesday, January 26	Registration for Second Semester
Wednesday, January 27	Classes Convene
Friday, March 26	Midsemester, End of Third Nine Weeks
Friday, April 9	Spring Vacation Begins at 11:20 a.m.
Monday, April 19	Classes Resume
Saturday, May 29	Commencement
Wednesday, June 2	Last Class for Second Semester, 12:30 p.m.
Friday, June 4	End of College Year

## Summer Session 1971

Monday, June 7	Pre-session Begins
Friday, June 18	Pre-session Ends
Monday, June 21	Summer Session Begins
Friday, August 13	Commencement, End of Summer Session

## GENERAL INFORMATION

History and Objectives

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## HISTORY AND OBJECTIVES

Stout State University is one of the nine Wisconsin State Universities and prepares its graduates for professional positions in education, industry and business. It offers the bachelor of science degree in industrial education, industrial technology, home economics, home economics education, vocational education and related fields, and the bachelor of arts degree in psychology.

Newly-installed majors, in addition to psychology, include vocational rehabilitation, applied mathematics, art, art education, general business administration, marketing and distributive education, early childhood education, technical education, and hotel and restaurant management.

In addition to the major curriculum areas, Stout offers two years of basic liberal studies courses. The master of science degree also is offered in a variety of fields.

The university year is 36 weeks in length. There are two semesters of 18 weeks each. The summer session, which opens each year in June, two weeks after the close of the regular session, is eight weeks in length. Special short courses of one or two weeks' duration are held both before and after the regular summer session.

## HISTORY

The heritage of Stout State University is linked to the career, foresight, and generosity of Senator James H. Stout, pioneer Menomonie lumberman. Senator Stout's respect for acquired skill prompted him to establish a program of manual training and domestic science in the Menomonie grade and high schools in 1891.

The program soon outgrew the facilities, however, and by 1893, new buildings were constructed and the Stout Manual Training and Domestic Science School, still a part of the public school system, remained under the patronage of Senator Stout.

Guided by President Lorenzo Dow Harvey, who was appointed in 1903, the school grew and in 1908 changed its name to The Stout Institute as an independent corporation. Three years later and one year after the death of Senator Stout, the institute was put under control of a board of trustees appointed by the state of Wisconsin.

With state support, The Stout Institute continued to progress in the pattern envisioned by its founder. In 1917, state legislative action made it a degree-granting college. Evolution continued under the leadership of President Harvey and Burton E. Nelson; in 1935, The Stout Institute was authorized to offer postgraduate study and to grant the Master of Science degree in industrial education, vocational education, and home economics.

Dr. Verne C. Fryklund became president of the college in 1945. In 1955 the school became Stout State College and was placed under the jurisdiction of the Board of Regents of Wisconsin State Colleges. The school was also authorized to grant the Bachelor of Science degree in industrial technology in addition to the other degrees certified previously.

Dr. Fryklund guided the college through the period of burgeoning enrollment immediately after World War II and saw it well into a major building program before he passed the responsibility in 1961 to Dr. William J. Micheels, an alumnus of The Stout Institute, who became the

college's fourth president. In 1964, the college became Stout State University. Building is continuing and prospects for enrollment show a rising curve, but the university remains remarkably true to the purposes Senator Stout espoused.

One of nine state universities, Stout overlooks scenic Lake Menominee in Menomonie, a pleasant city with a population of 9,000. Menomonie is located on Interstate 94, an hour by automobile from Minneapolis and St. Paul, and 30 minutes from Eau Claire.

Stout, now in its 77th year, continues to be the leader in its fields — home economics and industrial-technical education—and has strengthened its offerings in the liberal studies. The University's world-wide reputation has been established and is maintained by the success of its graduates.

## OBJECTIVES

The objective of any college is to supply its students with knowledge, experience, and service in keeping with its general purpose. The basic objective of Stout State University can be stated in this way: to introduce students to the basic areas and systems of knowledge, to instill in them a desire to examine their lives' experiences critically and to provide the tools with which to make that examination, to induce them to use the knowledge they acquire and the critical faculties they develop to pursue to depth a vocational specialty.

Beyond this general objective, Stout State University has several specific educational aims. It hopes to instill in each student the ability and desire to:

1. Think constructively and creatively.
2. Participate in the discussion and solution of local, national and international problems.
3. Achieve a sense of social responsibility leading to a concern for the improvement of society.
4. Understand and appreciate the ideas of others and express his own effectively.
5. Understand the important discoveries of mankind and their impact on humanity.
6. Comprehend literature, art, music, crafts, and drama as expressions of other's experiences.
7. Attain social and emotional adjustment.
8. Attain a constructive attitude toward change; accept it when it seems necessary, or reject it when it seems unwarranted.
9. Enter a suitable occupation and advance in it to the limit of his abilities.

In addition to the personal values it hopes to help its students realize Stout State University also serves three broad, interrelated functions as an institution chartered by the state.

## THE EDUCATION FUNCTION

1. Provide guidance and counseling to aid students in identifying their problems and selecting suitable courses of action.
2. Prepare professional personnel for a variety of levels and types of schools.
3. Prepare persons for professional positions in business and industry.



4. Provide a liberal cultural background for students regardless of specialty.
5. Provide a broad technical background to students preparing to engage in specialized work.
6. Prepare students to transfer to other colleges for specialties other than those offered by the university.

#### THE SERVICE FUNCTION

1. Provide leadership to the profession in the areas of work offered by the university.
2. Provide professional service to schools in the form of consultation evaluation, in-service education, curriculum planning, and plant development.
3. Provide professional service to business and industry and serve as objective critics in the fields in which the university specializes.
4. Contribute to an improved cultural tone for the community through the production, sponsorship, and promotion of cultural activities.

#### THE SCHOLARSHIP AND RESEARCH FUNCTION

1. Serve as a stimulus to the continuous intellectual development of the faculty.
2. Be aware of and sensitive to the constantly accumulating body of knowledge in the areas of the university's concentrations and aid in its dissemination.
3. Add to the body of technical and professional knowledge by adaptation, analysis, synthesis, and evaluation of existing and developing knowledge.
4. Increase the wealth of knowledge through research in the fields of the university's concentrations.

### PIGEON LAKE FIELD STATION

The Wisconsin State Universities sponsor a summer program at Pigeon Lake Field Station near Drummond, Bayfield County, in northwestern Wisconsin. Appropriate course work successfully completed in the various camp programs by students enrolled in the system is credited as residence study by their respective universities.

In the past the camp has been used principally for programs in art, outdoor education, school camping, and for field biology institutes which have been supported by the National Science Foundation. These programs have varied in length from two to six weeks. Additional course work in other areas will be scheduled for future years.

The field station has been leased from the U. S. Forest Service since 1959 and functions as a natural laboratory in the heart of the Chequamegon National Forest. Sixteen rustic cabins are available, each with a capacity of six to eight students. A dining hall, recreation hall and two classroom-laboratory buildings are situated near 1400 feet of shoreline. Excellent facilities are available for boating, swimming and fishing.

Pending programs are publicized by special announcement in the early spring. For further details contact the registrar or the campus member of the Pigeon Lake steering committee.

## ACADEMIC INFORMATION

### ADMISSION PROCEDURE

Application for Admission forms may be obtained by writing to the Director of Admissions or from the office of the Director of Guidance at a high school.

High School students may apply for admission any time after October 1 of their senior year. Students are urged to submit applications no later than March 1. As soon as the completed application is received, the Director of Admissions will evaluate the information and will notify each student regarding his eligibility to enroll. Those who are accepted will receive by return mail a housing application form, a health examination form, and pertinent information describing subsequent steps necessary to complete the admission and registration process.

All applicants for admission are required to participate in the American College Test (ACT) program. The test is administered in centers convenient to every student. Information and application forms are available in the Guidance Department at each high school. The results of the tests are used as criteria for admission and for placement in mathematics and English courses.

### ENTRANCE REQUIREMENTS

Students admitted to Stout State consist of three groups:

1. Those who have graduated from an accredited high school.
2. Those who have submitted evidence of studies pursued successfully at an institution of higher education.
3. Those who qualify as adult special students.

#### HIGH SCHOOL GRADUATES

Entrance requirements for high school graduates are as follows:

1. Graduation from a legally established accredited high school.
2. Recommendation by a high school official.
3. Meet the established class rank and ACT Standard Composite score as set down by the Board of Regents of Wisconsin State Universities.

NOTE: Students not meeting the requirements of item 3 may attend a summer session at a Wisconsin State University following a prescribed course of study. Students earning a 1.5 grade point average based on a 4 point system during the eight week session would be eligible to enroll for the fall semester.

## TRANSFER STUDENTS

Because of the heavy concentration in the highly specialized technical fields, students who plan to transfer to Stout State are strongly encouraged to do so by the beginning of their sophomore year.

A transfer student should request that two copies of his transcript from each institution of higher learning that he has attended be submitted to the Director of Admissions at Stout State University along with the Application for Admission. Transcripts are required even if the student earned no credits or if he does not desire to transfer any credits. Failure to declare previous attendance at any institution of higher education may result in immediate suspension. Also required is a personal reference request form for completion by the Dean of Students or his representative from the last institution attended. This form will be mailed to the applicant following receipt of his application for admission.

Credits to be transferred must carry a grade of "C" or better and, of course, must fit into the curriculum which the student has selected at Stout State. Correspondence courses and courses taken in military schools will be evaluated individually. Transfer students whose overall grade point is below 2.0 (on a 4 point basis) may be admitted on probation if a similar record earned at Stout State would have entitled them to continue.

## TECHNICAL INSTITUTE TRANSFER POLICY

Stout State University will accept students from technical institutes. They must be recommended by the director or responsible technical institute official.

Credits will be accepted in transfer if they are part of a major program accredited by the State Board of Vocational, Technical and Adult Education. The procedures used for evaluating technical institute transcripts will be the same as that for transcripts from NCA accredited colleges and universities: (a) courses in which "D" grades have been earned will not be accepted in transfer; (b) courses must be listed on a technical institute transcript; (c) transcripts must be signed by the registrar or a responsible official of the technical institute.

Courses completed as part of a vocational level program will not be accepted in transfer. Students transferring and wishing credit for such course may be awarded credit only after completion of an examination.

All evaluations (posted on Stout State University transcripts) will include this phrase: "Provisional credit is awarded, to be validated by satisfactory work in residence."

Credits earned at Vocational, Technical and Adult Schools accredited by the NCA will be accepted in transfer as they have in the past.

## ADULT SPECIAL STUDENTS OR VETERANS

Adults over the age of 21 may be admitted even though they have not completed high school if scholastic success and appropriateness of the offerings of the University are indicated by tests and interviews conducted at the University. Those who expect to enter as adult specials should arrange with the Director of Admissions for such testing and interviewing well in advance of the term for which entrance is desired.

## FINANCIAL INFORMATION

### FEES

Since the catalog must be prepared far in advance, all fees, room and food rates, and other charges are subject to change without notice. Fees are payable at the pre-registration period that precedes each term. Students who do not pay their fees by a stipulated date following the pre-registration period will have their pre-registration cancelled. They may still register but run the risk of having some classes closed for which they had previously pre-registered. The fee receipt is to be retained by the student. Students are not admitted to classes without this receipt.

### WISCONSIN RESIDENT UNDERGRADUATE FEES FOR ONE SEMESTER FOR 1969-70

Incidental Fee .....	\$146.00
Student Activity Fee .....	22.50
Textbook Rental Fee .....	11.00
Student Center Fee .....	15.00
Health Fee .....	5.00
	<hr/>
	\$199.50

### TUITION

There is no tuition charge for residents of Wisconsin. The tentative tuition for nonresident undergraduates is \$467 per semester. A nonresident is defined as any student who has not been a resident of the state for one year preceding his admission to Stout State University.

### GRADUATE FEES

Graduate students pay an additional \$19 for Wisconsin residents and \$120 for nonresidents each semester.

### STUDENT ACTIVITY FEE

All students are members of the Stout Student Association. The student activity fee entitles every student of the college to admission to all athletic events, to all concerts given by the student musical organizations, to productions by the dramatic organization, to lyceum and assembly programs sponsored by the college, and to all student dances given under the auspices of the student association. The fee also covers the cost of subscription to The Stoutonia, the student weekly newspaper; The Tower, the college annual; class membership; and membership in the Student Center. (The activity fee also covers a portion of the cost of first-aid service and treatment for minor illnesses by the college physician.)

### STUDENT CENTER FEE

The student center fee is used to pay for the cost of construction of the building and to maintain and operate it.

### TEXTBOOK FEE

Textbooks are provided to undergraduate students on a rental basis at the rate of \$11 per semester. Details of an optional purchase-rental plan are being formulated.

### RESIDENCE HALLS AND FOOD COSTS

Currently the semester charge, if paid in advance, for room and board (21 meals per week) is \$418.

Full payment for room and board is required at time of registration. However special arrangements may be made to pay by the installment plan.

The schedule for payment by the installment plan for room and board is as follows:

Date Due	
1st week of semester .....	\$142.00
End of sixth week .....	\$142.00
End of twelfth week .....	\$142.00
	<hr/>
	\$426.00

A penalty of \$5 is assessed for all late payments, whether by semester or by installment.

A \$50 room deposit is required on all room reservations at the beginning of the first term. Students cancelling admission to the University prior to July 15 of the fall term shall be refunded in full. After July 15, for students cancelling admission or failing to register, the deposit is forfeited.

### LABORATORY AND SHOP COSTS

In general, all materials for laboratories and shops are furnished. However, in a few courses the student furnishes material for a project which is to be his own personal property when completed.

### PART-TIME STUDENTS

All resident undergraduate students taking 11 or fewer semester hours of credit shall be classified as part-time students. These students shall tentatively pay an incidental fee of \$13 per credit (resident) or \$52 per credit (non-resident). The comparable per-credit costs for part-time graduate students are \$20 and \$83.

### SPECIAL FEES

Graduation Fee .....	\$ 7.50
Special Examination Fee (taken in special cases only) .....	\$ 2.00
Late registration .....	\$10.00
Commencement regalia rental based on cost.	

### REFUNDS ON FEES

1. Semester Basis
  - a. 100% the first week of classes
  - b. 80% the second week of classes
  - c. 60% the third and fourth week of classes

- d. 40% the fifth and sixth week of classes
  - e. 20% the seventh and eighth week of classes
- (Part-time students withdrawing during the first week of classes will receive a 90% refund with a forfeiture not to exceed \$20.)

In determining withdrawal date, the University uses the date the student notifies the school of the withdrawal; or if the student fails to notify the school and is otherwise unable to verify date of withdrawal, the date of the request to refund should be used to determine the placement on the schedule.

2. Summer Session

- a. 90% prior to eligibility to start classes
- b. 75% during first week of class schedule
- c. 0% after first week of class schedule

3. Exceptions

- a. Students who enter military service by enlistment, draft or otherwise shall receive either a full refund of fees or receive course credits for the term.
- b. Other exceptions to the above may be made upon approval of the President and the designated board office representative.
- c. Students who voluntarily withdraw shall be refunded room and board paid in advance on a weekly prorated basis. In all cases, the refund begins on the Monday of the week following withdrawal. Students withdrawing voluntarily shall forfeit the \$50 deposit.
- d. Students who withdraw for military service or suspended by the school shall be refunded room and board paid in advance on a weekly prorated basis including the deposit less any assessment of residence hall damage claims. Other exceptions may be authorized with approval of the designated representative of the University due to extraordinary circumstances.

## SCHOLASTIC STANDARDS

Credit is expressed in semester hours. A credit of one semester hour represents the satisfactory completion of the work of one recitation a week for a period of one semester. A course having five recitations a week will therefore give five semester hours of credit.

In order to receive a degree, the student not only must gain the required number of credits in the course which he is pursuing, but also must attain a certain standard of scholarship. This standard is fixed by grade points as credits.

Cumulative grade point averages are determined by the "grade point system"; they are computed by dividing the total number of points earned by the total number of credits attempted. Point values for the various letter grades are as follows:

Letter Grade	Grade Points per Credit
A	4
B	3
C	2
D	1
F (Failure)	0
I (Incomplete)	0 (Not counted as credits attempted)
W (Withdrew)	0 (Not counted as credits attempted)



A student who fails to withdraw officially from this University will receive a grade of F in all courses he is pursuing. No-credit courses are not counted as credits attempted. Repeated courses do not count as credits attempted each time of enrollment. A student may repeat courses in which grades of F or D are received.

## SUSPENSION AND PROBATION

A 2.0 grade point is needed for graduation. A lower grade point average at any time, although it may not result in probation or dismissal, cannot be construed as satisfactory progress toward a degree. Moreover, certain curricula may require that a student have a grade point average greater than 2.0. To assist the student in his orientation to university level work, the minimum acceptable standards for retention are defined as follows:

1. A first semester freshman will be placed on probation if he achieves a grade point average less than 1.6 at the end of the semester; he may be suspended if his grade point average is less than .75 at the end of the semester.
2. A second semester freshman will be placed on academic probation if his cumulative grade point average at the end of the second semester is less than 1.8; he may be suspended if his grade point average is less than 1.0 for the semester.

A student who has been declared academically ineligible to continue at a university may request a hearing from a faculty committee assigned such responsibility of appeal. The probation and suspension statements in the preceding paragraphs apply to all campuses of the Wisconsin State University System. Thus a student suspended for academic reasons on one State University campus may not enroll at another State University campus until he would be eligible for readmission at the university which suspended him. This section contains only a partial listing of regulations. A booklet, "Academic Probation and Dismissal Policy" contains a complete listing. This booklet can be obtained in the Registrar's office.

## PROGRAM CHANGES

Students may add classes during the first five class days for quarter classes and semester classes. Generally students are expected to complete courses for which they enroll. However, if a student deems it necessary, after consultation with his instructor and advisor, he may withdraw from a course during the first six weeks (including orientation and registration days) of a semester class or during the first three weeks (including orientation and registration days) of a quarter class. Withdrawal from a class after the above specified times will result in a grade of "F," unless the student has permission from the School Dean and from the Vice President for Academic Affairs. If the student has permission, a grade of "W" will be issued. The Registrar's office must be notified of all changes in class attendance by the student. Inaccurate notification will likely result in automatic grades of "F."

## PROCEDURE FOR WITHDRAWAL

Withdrawal should be undertaken only after most serious consideration. To insure careful consideration of the intention to withdraw, to

protect the students from the dangers which may result from failure to use the approved withdrawal procedures, and to assist university officials who are concerned with withdrawals, the following procedure has been established:

1. The person intending to withdraw schedules an exit interview at the Student Services office. If the withdrawal is to occur, a withdrawal form, provided by the office, is to be signed by prescribed University personnel.
2. This form, containing the signatures of the designated persons, is then filed with the Registrar.

### SPEECH PROFICIENCY

Certain curricula require that students have speech proficiency for graduation (see the basic requirements for each major). The speech proficiency of students is evaluated in 391-106 Fundamentals of Speech. Those students not having acceptable speech may seek help from the Speech Department by enrolling in the non-credit speech evaluation program or by selecting a second speech course (391-223, 391-320, 391-325, 391-405, 391-406) where they may attempt to achieve proficiency.

### REQUIREMENTS FOR GRADUATION

The semester credit hours required for graduation vary slightly with the major and are stated under the course of study for each major. Total grade points must be twice the number of semester hours. The normal time required for the completion of these requirements is four years and results in the awarding of the Bachelor of Science or Bachelor of Arts degree. Meeting the requirements for graduation is a responsibility of the student.

To fill the minimum residence requirement the last 32 semester hours of credit (64 grade points) must be earned in residence at Stout State University. Candidates for degrees are required to attend the commencement exercises. Registration with the Placement Office is a requirement for graduation.

### GRADUATION WITH HONORS

In each graduating class, the selection of students for high distinction and distinction is based upon scholarship. A student must have a minimum grade point of 3.2 and have earned at least 45 semester hours of credit in residence one semester prior to graduation to be considered for honors. The high distinction group is not more than 5% of each of the graduating groups, and the distinction group not more than 10%. These honors are indicated on the commencement program and are made a part of the student's permanent record.

Courses in which grades of "S"—satisfactory—are recorded are not included in the computation of grade points and grade point averages.

### ATTENDANCE POLICY

This policy will apply to all students enrolled at Stout State University:

1. Regular attendance is the responsibility of each student and it is assumed that all students will attend those classes for which they are registered.



2. The attendance policy of each instructor is to be submitted in writing to each class. It may be discussed with or explained to the students. The instructor is urged not to use attendance as a major or fixed factor in the calculation of the student's grade.
3. The responsibility for assignments, experiments, or other class activities carried on during any absence rests with the student.
4. Excuses or notification for student absences will be issued by the Dean of Students under the following circumstances:
  - a. For school sanctioned events such as field trips, athletic contests, and the like.
  - b. For "no-cut" absences covered in Section 5.
  - c. For unusual absences students may seek because of lengthy illness or family situation.
5. Starting with the first hour of the day of dismissal, and ending with the close of classes on the first day of classes immediately following a vacation period, is a span of time classified as "no-cut" days. One negative grade point per class missed will be recorded on the student's total grade points on the permanent record for each reported absence on a "no-cut" day. If the absence is to be excused, the respective Dean will issue the excuse.

## SPECIAL PROGRAMS

### OVERLOAD POLICY

Students whose total grade point average is 3.5 or better may enroll for a maximum of 20 credits. Students whose grade point is better than 3.0 but less than 3.5 may register for a maximum of 19 credits. Students whose average is 2.5 or better may register for 18 credits. Students whose average is less than 2.5 may register for not more than 17 credits except with special permission of the Dean of the appropriate school. It is recommended that a student on probation be advised to carry a reduced program.

### INDEPENDENT STUDIES

A flexible academic program called Independent Studies is offered by most departments to help develop more of our students into self-directed learners. This program provides more scope and depth in the curriculum by encouraging students to: Investigate areas of interest not currently included in any approved course at Stout; study areas and develop projects which cut across course boundaries; and delve more deeply into specific parts of an existing offering.

The Independent Studies program is open to all students after they have completed one semester on-campus. For each semester hour of credit, a student is expected to expend at least 54 clock hours of study. The same conditions for registration apply as for any other course. In addition, approval for an Independent Study course must be obtained. Application forms are available in the Independent Study-Field Experience office. The study is approved by the student's advisor and the chairman of the department most closely related to the particular study area. After this approval, a faculty member is selected jointly by the student and the department chairman to act as a study advisor.

## HONORS COURSES

Several honors courses are offered each year. An honors course is intended for students who present evidence of mastery of basic concepts of the subject. Additional opportunities for enrichment are provided.

## EXTENSION SERVICES

The University offers a program of evening and Saturday morning extension classes. Credits earned through enrollment in these off-campus courses are considered as extension credits (not residence). They are transferable to Stout State University on the same basis as they are to other colleges and universities. Registration for these courses is completed at the first class meeting by the University Extended Services Director or by the instructor. Textbooks required for the class by the instructor are made available for purchase at the first class meeting.

Course numbers, titles, and content are the same as those offered on the university campus. Courses numbered in the 400's carry either graduate or undergraduate credit and those numbered 500 and above carry graduate credit only.

Students previously matriculated on the Stout State University campus may enroll in off-campus credit courses, provided they are eligible to continue in the University and provided the courses which they wish to take are applicable toward the degree they seek. Undergraduate students who wish to earn Stout State University credit who have not previously matriculated must file a regular application for admission including transcripts from all schools attended to the Director of Admissions Office.

Students wishing to earn graduate credit must have filed an "application for admission to the graduate college" and have the registrar of the college awarding their bachelor's degree send a statement to the Stout State University Registrar certifying that they hold a degree. Such students may receive graduate credit but will not be considered master's degree candidates until they meet all other admission requirements.

## FIELD EXPERIENCE PROGRAM

Students are encouraged to obtain part of their college education off the Menomonie campus through the field experience program. This program allows a student to receive academic credit for off-campus experiences and study related to their major while employed in an approved field position. This work experience and study is then coordinated with classroom studies by means of group seminars, written reports, supervisor's evaluation and field visitation by faculty members.

Most students use their summers to enroll in this program but part-time employment is also permissible if it fulfills the 320 hours/semester requirement of experience. Most students obtain their own positions which is part of the educational experience. Lists of potential employers along with other aids to finding and securing field positions are available. Students may repeat the course for credit, but the experience must be in a different organization or progressively more advanced in the same organization. Some students and employers use field experience courses to develop a series of experiences in one organization with the student alternating every semester between their field position and on-campus

studies similar to a standard cooperative education program. Other students desire to change employers every time they participate and therefore obtain a broader off-campus orientation to their major.

Field experience courses are offered as electives in almost all majors, minors, and departments. At least one field experience is now required in four majors: American Industry, Business Administration, Fashion Merchandising and Hotel and Restaurant Management. The same conditions for registration apply as for any other course. In addition, approval for a Field Experience course must be obtained. Application forms for enrollment in the program are available in the Independent Study—Field Experience office. The student's field position and their own individual learning objectives are then reviewed and approved by the student's academic advisor and the chairman of the department offering the course.

### UNDERGRADUATE FELLOWS PROGRAM

The faculty at Stout have long recognized that many students' intellectual energies remain untouched by their regular classroom experiences even though their grades remain high. Many times these same students respond most enthusiastically to potential learning experiences when they are not required.

This double problem: The need for intellectual challenge outside the regular classroom and the need for a program without requirements is met at Stout by the Undergraduate Fellows Program, a voluntary program for those students and others who can benefit from voluntary intellectual extracurricular activity. The program encourages each fellow to develop his program in four ways: By participating in formal voluntary learning opportunities, by undertaking independent studies in areas which they never contact in the regular curriculum, by developing and following regular reading programs of both professional and leisure material, and by seeking and accepting professional leadership roles.

Hopefully, then the Undergraduate Fellows Program fulfills the four purposes listed in the following excerpt taken from the original proposal:

- a. "To encourage the entire campus to regard learning as an individual, continuous-throughout-life activity not dependent entirely upon instructors, courses, and assignments; motivated by personal purposes rather than grades.
- b. To encourage highly talented students to anticipate high level leadership roles by developing now the perspectives, habits, and attitudes toward continuous learning which they will use after graduating. The perspective being encouraged is 'beyondness'—beyond the curriculum, beyond what one has to learn to get by, and beyond the requirements to hold a specific job.
- c. To offer a voluntary program of preparation for graduate studies at Stout or elsewhere.
- d. To prevent underachievement among Stout's highly talented students."

### AFFILIATION WITH THE MERRILL-PALMER INSTITUTE

Stout State University carries an affiliation with The Merrill-Palmer Institute in Detroit, a private institution with a program devoted to study of human development and family services.

Sophomore students in any home economics major may make application to study at Merrill-Palmer for a semester starting with the second semester of their junior year. The Dean of the School of Home Economics administers the program with the aid of a faculty committee. This committee selects students eligible for the program on the basis of scholarship and readiness for intensive study in human relationships.

### CREDIT FOR INDUSTRIAL WORK EXPERIENCE

Under certain conditions university credit will be granted for experience in industry. In all cases a careful evaluation will be made of the appropriateness of such experience to fulfill degree requirements and vocational objectives. Credit may be awarded for: 1. previous trade or occupational experience; 2. university supervised industrial work assignments; 3. special schools conducted by industry.

1. Previous trade or occupational experience. A maximum of 24 semester hours of technical credit may be earned through examination by those students who have completed an apprenticeship plus three years of successful journeyman occupational experience. Students with less than this amount (7 years) of experience may request examinations in specific technical courses upon presentation of evidence of appropriate work experience in that area.

Students wishing to receive credit for journeyman experience should first present evidence of the required amount of work to the Dean of the School of Applied Science and Technology. Such evidence should be presented shortly after the first enrollment to allow special program consideration. If the work experience is deemed satisfactory by the Dean, upon the completion of 60 semester hours of credit, an examination will be arranged as follows:

- a. An advisory examination committee from the trade or occupations will be set up. Agencies to be represented on the advisory examining committee will include the State Board of Vocational and Adult Education, employers in the occupation, employees in the occupation, and Stout State University. The examinations will be conducted at Stout State University and will include oral, written and performance sections.
- b. The University will hold examinations to include written work and performance.
- c. Upon satisfactory completion of such examinations, the advisory committee will be convened for an oral examination. All reasonable expenses for the examination will be borne by the student.
- d. The examining committee will recommend the amount of credit to be awarded to a maximum of 24 semester hours.

### SPECIAL SCHOOLS

Special schools are conducted by industry. Many manufacturers offer specialized, often short term, technical courses. Some of these are suitable for university credit. The following guidelines are used to award such credit:

- a. The student makes all arrangements with the Extended Services office.
- b. Credit is awarded on the basis of one credit for each full week of attendance.



- c. Students must be enrolled and pay fees at the University prior to taking the course.
- d. Approval by the Dean of the School of Applied Science and Technology will be necessary prior to enrollment for credit.

## SUMMER SESSION

Each year Stout State University offers twelve weeks of summer school. A two-week pre-session begins immediately after the close of the regular academic year. This is followed by the regular eight-week summer session. A two-week post-session concludes the schedule. Thus, great variety is possible in summer programs.

Credit may be earned at the rate of one semester hour per week's attendance. This makes it possible to earn as much as twelve credits during a summer. Some non-credit workshops are offered but most of the work is in regular courses carrying university credit.

The summer session schedule of classes includes a variety of courses involved with undergraduate degree programs. Because of the large number of graduate students in attendance during the summer, practically all graduate level courses are offered each summer. Several sections of basic graduate courses are usually scheduled for flexibility in programming.

Each summer special workshops are scheduled for various interest groups. Sponsored institutes in special fields are common.

Special lectures and conferences are included in the summer session program. Evening lyceum programs of general interest are available with no admission charge. Specialists in the various major fields of work are often in residence for several days or weeks.

The Summer Session Bulletin is published each April. It contains complete information about offerings, class schedules, enrollments procedures, degree programs, and housing. A copy will be sent on request.

## PHYSICAL FACILITIES

### BUILDINGS AND GROUNDS

Stout State University's 96 acre campus is located along Menomonie's Lake Menomin. Eight well equipped buildings, Harvey Hall, Bowman Hall, Ray Hall, Fryklund Hall, the Memorial Student Center, the Pierce Library, and the Health and Physical Education Center and a communications building comprise the central plant. The newest facilities to be added are a \$4.5 million science and technology building, a \$1 million library facility, and a \$1 million administration building. Two \$4.5 million facilities, a Home Economics building and an Applied Arts building are anticipated by 1974.

There are nine residence halls with dining facilities nearby. Three additional halls will be available for occupancy soon. Two of the three will provide apartment living for single students, the first such facilities in the Wisconsin State University system.

## THE LIBRARY

The Robert L. Pierce Library has a book collection of over 86,200 volumes, a microfilm collection of more than 1,400 reels, and currently receives in excess of 1,070 periodical titles. The greatest strengths of the collection continue in the fields of Stout's historic specialization in home economics, industrial and vocational education. However, broadening curriculums have required a broadening library collection, numerically and in depth, to support new majors. University status puts important new demands on the collection, with the result that it is experiencing a period of unprecedented expansion.

## LABORATORIES AND EQUIPMENT

The laboratories for the teaching of industrial subjects are well-equipped and modern. Ray Hall is devoted exclusively to laboratories containing complete equipment for elementary and advanced classes in building construction, wood technics, plastics, and industrial graphics. Bowman Hall contains labs equipped for work in graphic arts, power mechanics, and audio-visual communication and photography as well as laboratories and lecture rooms for courses in the arts and sciences. Fryklund Hall, constructed in 1961, contains metalworking and auto mechanics labs, electronic laboratories, a general industrial arts lab, the music department, and classrooms.

The home economics laboratories in Harvey Hall are completely modern and well equipped. Laboratories used for home furnishings, child development, food science and nutrition, clothing and textiles, home economics education, and the sciences are housed in this building. Adequate lighting and modern furnishings and equipment allow effective instruction in pleasant and comfortable surroundings.

## AUDITORIUMS

Two auditoriums provide forums for convocations and student concerts and productions as well as traveling programs and nationally known speakers. One of the wings of Harvey Hall houses a modern auditorium with a seating capacity of 800. The Health and Physical Education Center includes a fieldhouse auditorium which will seat in excess of 3,000.

## HOME MANAGEMENT HOUSE

A thoroughly modern and fully equipped home management house provides all conveniences and accommodations desired in buildings of this type. It contains living room, kitchen, laundry, and the director's living quarters in addition to comfortable, well-lighted rooms.

## CHILD STUDY CENTER

The Child Study Center offers unique opportunities for observation and participation with preschool children. The center, staffed and directed by the Department of Child Development and Family Life, operates throughout the school year for seminar classes and as a resource center for individual special projects. Faculty offices are also located at the center.

## COURSES OF STUDY

Major Curricula (Alphabetical)

Minors/Blocks

Course Descriptions

Applied Science and Technology

Home Economics

Liberal Studies

Education

## COURSE NUMBERING SYSTEM

Course numbers are designed, in part, to indicate the school and the department within the school that are offering the course. An example: 176-547 Advanced Technical Problems is offered by the School of Applied Science and Technology (1) by the school's Power Technology Department (76), and is a graduate only (5) fifth year course. The fifth and sixth numbers (47) are assigned by the Registrar for office use. School and department numbers are:

### APPLIED SCIENCE AND TECHNOLOGY (1)

100	Interdepartmental	157	Metals
102	American Industry	176	Power Technology
107	Audio Visual	182	Safety
124	Electronics	196	Wood Technics and Plastics
137	Graphic Arts	449	Industrial Teacher
148	Industrial Graphics		Education
150	Industrial Technology		

### HOME ECONOMICS (2)

200	Interdepartmental	229	Food Science and Nutrition
212	Child Development and Family Life	244	Home Management
214	Clothing, Textiles and Design	245	Hotel and Restaurant Management
		442	Home Economics Education

### LIBERAL STUDIES (3)

303	Anthropology	355	Mathematics
304	Art	360	Music
308	Biology	365	Philosophy
309	Business Administration	366	Physical Education
311	Chemistry	367	Physical Education—Men
320	Economics	368	Physical Education— Women
326	English—Journalism	372	Physics
328	Foreign Languages	375	Political Science
336	Geography	387	Sociology
338	History	391	Speech
354	Applied Mathematics		

### EDUCATION (4)

401	American Industry	421	Education
	Education	459	Vocational Rehabilitation
405	Art Education	469	Vocational Education
407	Audio-Visual Education	477	Early Childhood Education
416	Distributive Education	479	Psychology



## THE MAJOR CURRICULA

The major course sequences are on the pages immediately following. They are listed here, however, for your convenience and as a directory. Stout also has a number of minor course sequences. They are listed in the next section.

### THE MAJORS:

American Industry Education  
Applied Mathematics  
Art Education  
Art (Non-Teaching)  
Business Administration  
Clothing, Textiles and Design  
Dietetics  
Early Childhood Education  
Fashion Merchandising  
Food Service Administration  
Home Economics in Business  
Home Economics Education

Home Economics General  
Hotel and Restaurant Management  
Industrial Education  
Industrial Technology  
Marketing and Distributive  
Education  
Psychology  
Technical Education  
Vocational Rehabilitation  
Vocational, Trade and Industrial  
Education

## AMERICAN INDUSTRY

(PREPARATION TO TEACH IN SECONDARY SCHOOLS)

### GENERAL REQUIREMENTS — BS DEGREE:

Minimum total for graduation .....	130 credits
Required in Education .....	20 credits
Required in Major Field .....	34 credits
Required in Liberal Studies .....	56 credits
Electives .....	20 credits

1. A major in American Industry with an approved 22-credit minor. These minors are described in the department course description.
2. A double major—American Industry and another recognized major. This option is worked out on an individual basis between the student, his American Industry advisor and the advisor from the second major. The student considering this option should anticipate some additional work.
3. A major without a minor.

The major in American Industry may be elected during the Freshman or Sophomore years. Both men and women are encouraged to apply for admission. Should a student choose to enter the American Industry program after the Sophomore year, he may do so if he is willing to assume the burden of a considerably lengthened program.

American Industry is organized into thirteen major concept areas. These thirteen areas have been identified as communication, transportation, finance, physical facilities, research, procurement, industrial relations, marketing, management, production, materials, processes, and energy. This major is directed to the need for secondary school youth to develop an understanding of those concepts which directly apply to industry.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
102-115, Structures and Concepts .....	2
102-100A, Interdisciplinary Seminar .....	0
102-123, Processes I .....	4
355-120-121, Introductory College Math I & II .....	8
366-101, Personal Health, Men .....	1
367-127 or 368-128, Physical Education .....	2
326-101-102, English Composition <sup>1</sup> .....	6
OR	
326-111-112, English Composition <sup>1</sup> .....	6
387-110, General Sociology .....	3
479-123, General Psychology .....	3
391-106, Fundamentals of Speech .....	2

### SECOND YEAR

365-101, Introduction to Philosophy .....	3
372-221, Physics I .....	5
102-210, Communication .....	4-2
401-205A-B, Prof. Teacher Education for American Industry .....	4
102-100A-B, Interdisciplinary Seminar .....	0
102-223, Relationships in Industry .....	2
311-115, Inorganic Chemistry .....	5
102-214, Transportation .....	2
Electives .....	3-5

### THIRD YEAR

360-—, Music elective <sup>2</sup> .....	1-2
375-311, Government .....	3
391-—, Theater elective <sup>2</sup> .....	2
401-205C-D, Prof. Teacher Education for American Industry <sup>3</sup> .....	4
102-100C-D, Interdisciplinary Seminar .....	0
102-310, Materials .....	2
326-—, Literature elective .....	3
150-300, Production Management .....	3
Electives .....	13

### FOURTH YEAR

308-122, General Biology .....	3
304-—, Art theory or Art history .....	3
338-410, Modern World .....	3
309-330, Principles of Marketing .....	3
401-205E-F, Prof. Teacher Education for American Industry .....	4
449-408, Student Teaching .....	8
102-100E-F, Interdisciplinary Seminar .....	0

102-402, Physical Facilities .....	2
102-438, Energy in Industry .....	2
196-314, Production Systems .....	3
150-413, Manufacturing Cost Analysis .....	3
Electives .....	3-4

## ONE SUMMER:

102-298, Field Experience .....	2
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<sup>1</sup>Students must meet proficiency requirements for entry into teacher education.

<sup>2</sup>The Music course and Theater course will be waived where suitable previous work has been taken. Elective credit must be taken in their place.

<sup>3</sup>At the time students enter 401-205D, they must have a 2.5 Grade Point Average and maintain it through 449-408. Furthermore, at this time they must show evidence of having passed a physical examination, and proficiency in Speech and English.

## APPLIED MATHEMATICS

## GENERAL REQUIREMENTS — BS DEGREE:

Total for Graduation ..... 130 credits

Required in mathematics .....31-34 semester hours

Required in applied mathematics ....16-19 semester hours

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Total, all mathematics courses .....47-50 semester hours....47-50 credits

Required in a related core .....20-23 credits

Required in Liberal Studies ..... 60 credits

The role of mathematics in our highly scientific-technological society is basic and essential. Mathematics is increasingly recognized as a valued tool in more and more areas of human endeavor. The rise in the demand by industry and business for people with strong mathematical preparation has been rapid and significant.

The program in applied mathematics provides a strong foundation in academic mathematics essential to application and to possible graduate study. The applied mathematics core includes the study of mathematical model development, computer science, and statistics—three areas most common in industry and business. Related courses, selected under advisorship according to individual interests from Stout's unique industrial and business offerings, provide an orientation to these major forces in our culture. A core of liberal studies rounds out the undergraduate program.

Following is a suggested yearly sequence of courses. Students qualifying for advanced placement or honors courses will make the appropriate substitutions in the requirements listed.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
355-156-157, Calculus and Analytic Geometry .....	10
354-141, Digital Computer Programming .....	2
326-101-102, English Composition .....	6
367-127 or 368-128, Physical Education .....	2
479-123, General Psychology .....	3
Related core elective .....	2
Science (Liberal Studies) electives .....	8

### SECOND YEAR

355-255, Differential Equations .....	3
355-265, Modern Geometry .....	3
OR	
Mathematics elective .....	3
355-275, Linear Algebra .....	3
366-101, Personal Health .....	1
391-106, Fundamentals of Speech .....	2
320-210-211, Principles of Economics I and II .....	6
Applied Mathematics elective .....	2
Related core electives .....	4
Science electives .....	8

### THIRD YEAR

355-350-351, Real Analysis .....	6
355-331, Probability Theory .....	3
354-332, Mathematical Statistics .....	3
Related core electives .....	8
Art or music electives .....	4
Social Science electives .....	3
English electives (including 3 semester hours of literature) .....	6

### FOURTH YEAR

355-470, Modern Algebra .....	3
354-490-491, Mathematical Models .....	4
Applied Mathematics electives .....	5-8
Related core electives .....	6-9
Social Science elective .....	3
Liberal Studies electives (exclusive of mathematics) .....	9

## ART (Education)

### GENERAL REQUIREMENTS — BS DEGREE:

Completion of a minimum of 130 semester hours.

Liberal Studies courses: minimum of 56 semester hours.

Professional education courses: minimum of 20 semester hours.

A broadfield major in art: minimum of 54 semester hours.

### OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

#### FIRST YEAR

Course	Credit
326-101-102, English Composition .....	6
391-106, Fundamentals of Speech .....	2
367-127 or 368-128, Physical Education .....	2
304-200, Drawing .....	3
304-401, Drawing .....	3
304-410-411, Ceramics .....	6
304-390, Modern Art .....	3
Liberal Studies Requirement .....	3
Science or Math Core or Equivalents .....	4 or 5

#### SECOND YEAR

Art History elective .....	6
304-300, Painting .....	3
OR	
304-320, Sculpture .....	3
304-402, Painting .....	3
OR	
304-403, Sculpture (continue in area taken during first semester) ..	3
304-440-441, Art Metal .....	6
326-250, Ancient Literature in English Translation .....	3
Liberal Studies Requirement .....	11-13

#### THIRD YEAR

304-300, Painting .....	3
OR	
304-320, Sculpture .....	3
304-402, Painting .....	3
OR	
304-403, Sculpture .....	3
304-451-452, Printmaking .....	6
421-222, Principles of Secondary Education .....	2
304-420, Life Drawing .....	3
479-303, Educational Psychology .....	2

Art History elective .....	3
Art electives .....	3
Liberal Studies Requirement .....	9

## FOURTH YEAR

405-302, Introduction to Teaching Art in Elementary Schools .....	3
405-307, Introduction to Teaching Art in Secondary Schools .....	3
405-434, Curriculum Development for Art .....	2
405-408, Student Teaching .....	8
304-498, Esthetics .....	3
Art electives .....	9
Liberal Studies elective .....	5

## ART (Non-Teaching)

## GENERAL REQUIREMENTS — BS DEGREE:

Completion of a minimum of 132 semester hours.

Liberal Studies Courses: minimum of 68 semester hours.

Art Courses: minimum of 64 semester hours.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

## FIRST YEAR

Course	Credit
326-101-102, English Composition .....	6
391-106, Fundamentals of Speech .....	2
367-127 or 368-128, Physical Education .....	2
304-200, Drawing .....	3
304-401, Drawing .....	3
304-410-411, Ceramics .....	6
Science or Math Core or Equivalents .....	4-5
304-390, Modern Art .....	3
Liberal Studies Requirement .....	3

## SECOND YEAR

Art History electives .....	6
304-300, Painting .....	3
OR	
304-320, Sculpture .....	3
304-402, Painting .....	3
OR	
304-403, Sculpture (continue in area taken first semester) .....	3
304-440, Art Metal .....	3
304-441, Art Metal .....	3
326-250, Ancient Literature in English Translation .....	3
Liberal Studies Requirements .....	11-13

## THIRD YEAR

304-300, Painting .....	3
OR	
304-320, Sculpture .....	3
304-402, Painting .....	3
OR	
304-403, Sculpture .....	3
304-451-452, Printmaking .....	6
304-420-421, Life Drawing .....	6
Art History elective .....	6
Art elective .....	3
Liberal Studies Requirements .....	7-8

## FOURTH YEAR

304-498, Esthetics .....	3
Art electives .....	16
Liberal Studies Requirements .....	11

## BUSINESS ADMINISTRATION (General)

## GENERAL REQUIREMENTS — BS DEGREE:

1. Total for graduation .....130 credits  
 Required in Liberal Studies ..... 60 credits  
 Required in Basic Business Administration ..... 15 credits  
 Required in Business Administration ..... 48 credits  
 Electives ..... 7 credits
2. Entering freshmen in Business Administration are required to complete one summer of Field Experience for 2 credits unless they have acceptable previous business or industrial experience. An additional six hours of Field Experience may be taken as electives during summers or school years.
3. Electives in Business Administration should be organized so as to provide some concentration in a particular area of business.
4. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

## FIRST YEAR

Course	Credit
326-101-102, English Composition .....	6
Mathematics .....	4
366-101, Personal Health .....	1
Science (Biology, Chemistry, Physics, or a combination) .....	8
367-127 or 368-128, Physical Education .....	2



479-123, General Psychology .....	3
391-106, Fundamentals of Speech .....	2
Arts (Art, Music, or Theater Art) .....	6

## SECOND YEAR

Additional English (must include at least one literature course) .....	6
Social Science (selected from at least 3 of the following disciplines: anthropology, geography, history, sociology, political science. At least 3 credits in history must be in- cluded) .....	12
309-206-207, Principles of Accounting .....	6
320-210-211, Principles of Economics .....	6
Additional Mathematics .....	3

## THIRD YEAR

150-300, Production Management .....	3
309-298, Field Experience .....	2
309-304, Principles of Business Organization .....	3
309-318, Business Law .....	3
309-325, Business Statistics .....	3
309-330, Principles of Marketing .....	3
309-340, Business Finance .....	3
Liberal Studies electives .....	10

## FOURTH YEAR

309-435, Managerial Accounting .....	3
309-450, Regulation of Industry .....	3
309-490, Administrative and Business Policies .....	3
320-360, Intermediate Economic Analysis .....	3
320-450, Managerial Economics .....	3
479-435, Personnel Management .....	3
Electives (10 semester credits in Business Administration plus 7 semester credits as free electives) .....	17

## EARLY CHILDHOOD EDUCATION

This major is designed to prepare teachers for kindergarten, nursery school, Head Start, day-care centers, etc.; to serve in child and family service agencies; and for further study in child development and family life.

## GENERAL REQUIREMENTS — BS DEGREE:

1. Total for Graduation .....	128 credits
Required in General Education .....	51 credits
Required in Early Childhood Education .....	51 credits
Electives .....	26 credits



To qualify for admission into the Early Childhood Education program, students must have a grade point average of 2.25 at the time that they enter 477-204 Introduction to Teaching Early Childhood Education and must maintain this average. They must also have on file a certificate indicating a physical and health examination previous to enrolling in 477-204.

Students wishing to qualify for Early Childhood Education must show proficiency in English by earning a "C" or above in the last course in English Composition or its equivalent. If a deficiency exists, the student is required to do remedial work in English to earn a qualifying score on an examination administered by the University Counseling Center.

Students entering the Early Childhood Education program must also present evidence of speech proficiency. The speech requirement must be met before taking 477-204 Introduction to Teaching Early Childhood Education. All students are rated in the required speech course as to their proficiency. Those rated as unsatisfactory should enroll in the non-credit evaluation program to attempt to achieve proficiency before they are approved for teaching.

The prospective Early Childhood Education teacher will receive training, experience, and theory. This sequence starts the first semester sophomore year and continues through the senior year.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
326-101-102, English Composition .....	6
355-120, Mathematics .....	4
479-123, General Psychology .....	3
391-106, Fundamentals of Speech .....	2
367-128 or 368-128, Physical Education .....	2
212-124, Child Development I .....	3
212-264, Child Guidance .....	2
360-134, Rudiments of Music .....	1
360-100, Applied Music .....	1
Science elective .....	3-4
Restricted Elective in Education .....	2
Electives .....	4

### SECOND YEAR

477-204, Intro to Teaching Early Childhood Ed .....	3
477-233, Curriculum I .....	2
477-333, Curriculum II .....	2
477-408A, Student Teaching—Nursery School .....	4
326-300, Children's Literature .....	3
Health elective .....	1-2
375-311, Government .....	3
Science elective .....	3-4
Social Science elective .....	3-4

Restricted Electives in the Major .....	2-3
Restricted Electives in Education .....	2
Electives .....	4

## THIRD YEAR

212-249, Family Relationships I .....	3
477-408B, Student Teaching—Kindergarten .....	4
477-433, Curriculum III .....	2
407-460, Audio-Visual Communication .....	2
326—, Literature elective .....	3
Restricted Electives in the Major .....	5-6
Social Science elective .....	3-4
Electives .....	10

## FOURTH YEAR

477-465, Administration of Early Childhood Ed. program .....	2
479-432, Psychology of the Exceptional Child .....	2
212-307, Parent Education .....	2
Science elective .....	3-4
Social Science elective .....	6-7
Restricted Electives in the Major .....	6-7
Restricted Electives in Education .....	6
Electives .....	5

## CLOTHING, TEXTILES AND DESIGN

To obtain the beginning academic preparation for teaching and research on the university level; to enter industry as a textile representative, consumer consultant, research technician, or decorative fabric designer.

## GENERAL REQUIREMENTS—BS DEGREE:

1. Total for graduation ..... 128 credits  
     Required in Liberal Studies ..... 48-49 credits  
     Required in Home Economics ..... 55-56 credits  
     Free Electives ..... 21-23 credits
2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.
3. Work experience may be obtained through participation in the Field Experience program.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
214-108, Clothing in a Contemporary World .....	3
214-118, Clothing Construction* .....	3
229-114, Food Science I .....	4
304-106, Fundamentals of Design .....	3
308-122, General Biology .....	3
308-214, Physiology and Anatomy .....	3
326-101-102, English Composition .....	6
368-128, Physical Education .....	2
391-106, Fundamentals of Speech .....	2
479-123, General Psychology .....	3
Electives .....	0-3

### SECOND YEAR

212-124, Child Development .....	3
214-215, Textiles I .....	3
214-218, Advanced Clothing Construction .....	3
229-212, Nutrition .....	3
304-334, Interior Design .....	3
311-115, Inorganic Chemistry .....	5
320-201, General Economics .....	3
326—, Literature elective .....	3
Electives .....	6

### THIRD YEAR

212-249, Family Relationships I .....	3
214-313, Flat Pattern .....	3
OR	
214-412, Draping .....	3
214-407, Textiles II .....	2
214-411, Decorative Fabrics .....	2
214-471, History of Costume; Ancient to European 1900 .....	3
OR	
214-475, History of American Costume .....	2
244-317, Consumer Economics .....	3
326-346, Expository Writing .....	3
OR	
326-410, Writing and Selling Feature Articles .....	2
387-110, General Sociology .....	3
214-319, Economics of Family Clothing .....	3
Electives .....	6-9

### FOURTH YEAR

214-273, Clothing and Textiles Industry .....	3
214-480, Social-Psychological Aspects of Clothing .....	3
214-482, Clothing and Textile Problems .....	2

244-304, Home Management Theory .....	3
244-404, Home Management Laboratory (resident or non-resident) .....	1
338-151-152, History or Civilization .....	6
214-450, Tailoring .....	3
Electives .....	11

\*Pretest to determine need.

## DIETETICS

To provide the academic background for a career as a therapeutic dietitian, administrative dietitian or nutrition educator.

### GENERAL REQUIREMENTS—BS DEGREE:

1. Total for graduation ..... 128 credits
  - Required in Liberal Studies ..... 62 credits
  - Required in Home Economics ..... 46 credits
  - Electives ..... 20 credits
 Completion of electives may occur by the following options:
  - a. a minor, or
  - b. two 15 credit blocks, or
  - c. free electives.
2. The student must fulfill the English adequacy and speech proficiency requirement prescribed by the respective departments.
3. Work experience may be obtained through participation in the Field Experience program.
4. A cumulative grade point average of 2.00 in the following key courses: 308-122, 308-214, 308-306, 311-115, 311-208, 299-114, 229-212, and 229-230, is required for a student to be admitted to candidacy in dietetics.

### OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

#### FIRST YEAR

Course	Credit
212-124, Child Development I .....	3
214-108, Clothing in a Contemporary World .....	3
229-114, Food Science I .....	4
304-106, Fundamentals of Design .....	3
308-122, General Biology .....	3
308-214, Physiology and Anatomy .....	3
326-101-102, English Composition .....	6
368-128, Physical Education .....	2
391-106, Fundamentals of Speech .....	2
479-123, General Psychology .....	3

## SECOND YEAR

214-215, Textiles I .....	3
229-212, Nutrition .....	3
229-230, Food Science II .....	3
308-306, General Bacteriology .....	3
311-115, Inorganic Chemistry .....	5
311-208, Organic Chemistry .....	4
320-201, General Economics .....	3
326—, Literature elective .....	3
Electives .....	5

## THIRD YEAR

212-249, Family Relationships I .....	3
229-308, Meal Management .....	3
229-328, Food Service Administration .....	3
308-362, Advanced Physiology .....	3
311-322, Biochemistry .....	3
326—, Writing elective .....	3
387-110, General Sociology .....	3
479-303, Educational Psychology .....	2
244-304, Home Management Theory .....	3
244-404R, Home Management Residence .....	1
Electives .....	5

## FOURTH YEAR

229-310, Nutrition and Dietetics .....	3
229-418, Diet Therapy .....	3
229-438, Experimental Foods .....	3
245-452, Quantity Food Production and Service .....	3
245-454, Institutional Food Purchasing .....	2
309-206, Principles of Accounting .....	3
442-320, Methods of Teaching Home Economics .....	2
479-435, Personnel Management .....	3
Electives .....	10

## FASHION MERCHANDISING

To prepare for fashion consulting, consumer counseling, retail buying and advertising in the merchandising of clothing.

## GENERAL REQUIREMENTS — BS DEGREE:

1. Total for graduation .....	128 credits
Required for General Education .....	50 credits
Required in Major .....	61-62 credits
Electives .....	16-17 credits

2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.
3. Work experience may be obtained through participation in the Field Experience program.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
214-112, Clothing I .....	4
304-106, Fundamentals of Design .....	3
326-101-102, English Composition .....	6
368-128, Physical Education .....	2
387-110, General Sociology .....	3
391-106, Fundamentals of Speech .....	2
479-123, General Psychology .....	3
Science elective .....	3
Math elective .....	4
Electives .....	2

### SECOND YEAR

150-290, Industrial Organization .....	2
214-215, Textiles I .....	3
309-206-207, Principles of Accounting .....	6
214-319, Economics of Family Clothing .....	3
214-273, Clothing & Textile Industry .....	3
320-210-211, Principles of Economics .....	6
309-330, Principles of Marketing .....	3
214-298, Field Experience .....	2
Science elective .....	2
Electives .....	2

### THIRD YEAR

214-325, Fashion Merchandising I .....	3
244-317, Consumer Economics .....	3
309-340, Business Finance .....	3
309-423, Retail Merchandising & Management .....	3
309-404, Salesmanship & Sales Management .....	3
309-304, Principles of Business Organization .....	3
326—, Writing elective .....	2-3
326—, Literature elective .....	3
304—, Art elective .....	3
Electives .....	5-6

### FOURTH YEAR

214-471, History of Costume: Ancient to European 1900 .....	3
OR	
214-475, History of American Costume .....	2

214-480, Social-Psychological Aspects of Clothing .....	3
479-435, Personnel Management .....	3
214-429, Textile Economics .....	3
214-435, Fashion Merchandising II .....	3
309-470, Principles of Advertising .....	3
338 or 375, History or Political Science elective .....	3
Electives .....	11-12

## FOOD SERVICE ADMINISTRATION

To provide the academic background for a career as administrator in large quantity food services, such as restaurants, hotels, motels, dormitories and school lunch programs.

### GENERAL REQUIREMENTS — BS DEGREE:

1. Total for graduation ..... 128 credits  
     Required in Liberal Studies ..... 77 credits  
     Required in Home Economics ..... 35 credits  
     Electives ..... 16 credits
2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.
3. Work experience may be obtained through participation in the Field Experience program.
4. A cumulative grade point average of 2.00 is required in the following key courses: 308-122, 308-214, 308-306, 311-115, 311-208, 229-114, 229-212, 229-230, for a student to be admitted to candidacy in the Food Service Administration major.

### OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

#### FIRST YEAR

Course	Credit
212-124, Child Development I* .....	3
214-108, Clothing in a Contemporary World* .....	3
229-114, Food Science I .....	4
304-106, Fundamentals of Design .....	3
308-122, General Biology .....	3
308-214, Physiology and Anatomy .....	3
326-101-102, English Composition .....	6
367-127 or 368-128, Physical Education .....	2
391-106, Fundamentals of Speech .....	2
479-123, General Psychology .....	3



## SECOND YEAR

214-215, Textiles I .....	3
229-212, Nutrition .....	3
229-230, Food Science II .....	3
308-306, General Bacteriology .....	3
311-115, Inorganic Chemistry .....	5
311-208, Organic Chemistry .....	4
326-___, Literature elective .....	3
355-109, College Algebra .....	4
355-113, Trigonometry .....	3
Electives .....	2

## THIRD YEAR

229-308, Meal Management .....	3
245-328, Food Service Administration .....	3
245-452, Quantity Food Production and Service .....	3
309-206, Principles of Accounting .....	3
320-201, General Economics .....	3
326-346, Expository Writing .....	3
372-221, Physics I .....	5
387-110, General Sociology .....	3
Electives .....	6

## FOURTH YEAR

245-454, Institutional Food Purchasing .....	2
245-318, Food Service Equipment .....	2
245-475, Advanced Food Production Management .....	3
309-318, Business Law .....	3
309-207, Principles of Accounting .....	3
338-407, History of America .....	3
OR	
338-410, Modern World .....	3
354-130, Computational Statistics .....	2
354-141, Digital Computer Programming .....	2
479-435, Personnel Management .....	3
Electives .....	8

\*Or elective for men.

## HOME ECONOMICS IN BUSINESS

To prepare to work in business for utility companies, foods publications, magazines, newspapers, radio and TV programming, and test kitchen work.



## GENERAL REQUIREMENTS — BS DEGREE:

1. Total for graduation ..... 128 credits
  - Required in Liberal Studies ..... 69 credits
  - Required in Home Economics ..... 45 credits
  - Electives ..... 14 credits
 Completion of electives may occur by:
  - a. a minor, or
  - b. Two 15 or 16 credit blocks, or
  - c. Free electives
2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.
3. Work experience may be obtained through participation in the Field Experience program.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

## FIRST YEAR

Course	Credit
212-124, Child Development I .....	3
214-108, Clothing in a Contemporary World .....	3
214-118, Clothing Construction* .....	3
OR	
304-106, Fundamentals of Design .....	3
229-114, Food Science I .....	4
308-122, General Biology .....	3
308-214, Physiology and Anatomy .....	3
326-101-102, English Composition .....	6
368-128, Physical Education .....	2
391-106, Fundamentals of Speech .....	2
479-123, General Psychology .....	3

## SECOND YEAR

214-118, Clothing Construction* .....	3
OR	
304-106, Fundamentals of Design .....	3
214-215, Textiles I .....	3
229-212, Nutrition .....	3
229-230, Food Science II .....	3
311-115, Inorganic Chemistry .....	5
311-208, Organic Chemistry .....	4
320-201, General Economics .....	3
326-306, Reporting and Newswriting .....	2
326-346, Expository Writing .....	3
326—, Literature elective .....	3

## THIRD YEAR

212-249, Family Relationships I .....	3
245-300, Applied Institution Management .....	3
229-308, Meal Management .....	3

244-317, Consumer Economics .....	3
244-333, Home Equipment and Household Physics .....	3
244-400, Demonstration Techniques .....	2
308-306, General Bacteriology .....	3
326-410, Writing and Selling Feature Articles .....	2
326-425, Copy Editing and Preparation .....	2
387-110, General Sociology .....	3
Electives .....	5

## FOURTH YEAR

229-438, Experimental Foods .....	3
244-304, Home Management Theory .....	3
244-404, Home Management Laboratory .....	1
309-330, Principles of Marketing .....	3
326-415, Technical Writing for Home Economics .....	3
338-407, History of America .....	3
OR	
338-410, Modern World .....	3
391-470, Television Programming and Performance .....	3
421-479, Public Relations .....	2
479-435, Personnel Management .....	3
Electives .....	9

\*Pretest to determine placement.

## HOME ECONOMICS EDUCATION

## PLAN I

Broadfield major of 55 semester hours in home economics and art with no minor.

To prepare to teach in secondary schools, in home economics related adult education programs, and in the Cooperative Extension Service.

## GENERAL REQUIREMENTS—BS DEGREE:

1. Total for graduation ..... 128 credits
  - Required in Liberal Studies ..... 39 credits
  - Required in Professional Education ..... 24 credits
  - Required in Home Economics and Art ..... 55 credits
  - Electives ..... 10 credits

Free electives should be selected from social science, physical sciences, humanities, home economics, industrial education and education courses.

No more than a total of six elective credits may be selected in home economics and art.

2. The student must fulfill the English adequacy and speech proficiency requirements as described in the professional education section of course descriptions.

3. Work experience may be obtained through participation in the Field Experience program.
4. Application for the teacher education program must be made by the second semester of the second year. In order to qualify for student teaching, candidates must hold a cumulative grade point average of 2.25.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
212-124, Child Development I .....	3
214-108, Clothing in a Contemporary World .....	3
214-118, Clothing Construction* .....	3
OR	
304-106, Fundamentals of Design .....	3
229-114, Food Science I .....	4
308-122, General Biology .....	3
308-214, Physiology and Anatomy .....	3
326-101-102, English Composition .....	6
368-128, Physical Education .....	2
391-106, Fundamentals of Speech .....	2
479-123, General Psychology .....	3

### SECOND YEAR

212-248, Family Health .....	2
214-118, Clothing Construction* .....	3
OR	
304-106, Fundamentals of Design .....	3
214-215, Textiles I .....	3
214-218, Advanced Clothing Construction .....	3
229-212, Nutrition .....	3
304-206, Introduction to Art .....	2
311-115, Inorganic Chemistry .....	5
320-201, General Economics .....	3
326—, Literature elective .....	3
421-222, Principles of Secondary Education .....	2
479-303, Educational Psychology .....	2

### THIRD YEAR

212-264, Child Guidance .....	2
212-249, Family Relationships I .....	3
229-230, Food Science II .....	3
229-308, Meal Management .....	3
244-317, Consumer Economics .....	3
244-333, Home Equipment and Household Physics .....	3
304-334, Interior Design .....	3
326-346, Expository Writing .....	3
387-110, General Sociology .....	3
442-304, Introduction to Teaching .....	3
Electives .....	3

## FOURTH YEAR

244-304, Home Management Theory .....	3
244-404, Resident or non-resident Home Management Laboratory ..	1
244-428, Family Finance .....	2
338-407, History of America .....	3
OR	
338-410, Modern World .....	3
421-401, Introduction to Guidance and Counseling .....	2
469-402, Principles of Vocational, Technical and Adult Education	2
442-404, Curriculum Development .....	5
442-408, Student Teaching .....	8
OR	
442-488, Internship Teaching .....	8
Electives .....	7

Student teaching may be taken either semester of the senior year. In order that the student may be free to teach in an off-campus school during second quarter of the semester, the courses starred above must be taken concurrently.

\*A placement test in clothing will determine whether 214-118 is needed.

## HOME ECONOMICS EDUCATION

## PLAN II

A major of 42 semester hours in Home Economics and Art and a minor of 22 semester hours in the following teaching minors: biology, chemistry, English, history, mathematics, safety education, sociology, and speech; or the following non-teaching minors: journalism, physics, sociology, and psychology; or minors listed under the course description of each department.

To prepare to teach in secondary schools, in home economics related adult education programs, and in the Cooperative Extension Service.

## GENERAL REQUIREMENTS—BS DEGREE:

1. Total for graduation ..... 128 credits
  - Required in Liberal Studies ..... 36-42 credits
  - Required in Professional Education ..... 24 credits
  - Required in Home Economics and Art ..... 42-45 credits
  - Electives ..... 20-23 credits
 Electives should be selected to fulfill the 22-credit minor.
2. The student must fulfill the English adequacy and speech proficiency requirements as described in the professional education section of course descriptions.
3. Work experience may be obtained through participation in the Field Experience Program.
4. Application for the teacher education program must be made by the second semester of the second year. In order to qualify for student teaching, candidates must hold a cumulative grade point average of 2.25.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
212-124, Child Development I .....	3
214-108, Clothing in a Contemporary World .....	3
214-118, Clothing Construction* .....	3
OR	
304-106, Fundamentals of Design .....	3
229-114, Food Science I .....	4
308-122, General Biology .....	3
308-214, Physiology and Anatomy .....	3
326-101-102, English Composition .....	6
368-128, Physical Education .....	2
391-106, Fundamentals of Speech .....	2
479-123, General Psychology .....	3

### SECOND YEAR

212-248, Family Health .....	2
214-118, Clothing Construction* .....	3
OR	
304-106, Fundamentals of Design .....	3
214-215, Textiles I .....	3
229-212, Nutrition .....	3
311-115, Inorganic Chemistry .....	5
320-201, General Economics .....	3
326—, Literature elective .....	3
421-222, Principles of Secondary Education .....	2
479-303, Educational Psychology .....	2
Minor or elective .....	6

### THIRD YEAR

212-264, Child Guidance .....	2
212-249, Family Relationships I .....	3
214-218, Advanced Clothing Construction or elective in area .....	3
229-308, Meal Management .....	3
244-317, Consumer Economics .....	3
304-334, Interior Design .....	3
326-346, Expository Writing .....	3
387-110, General Sociology .....	3
442-304, Introduction to Teaching .....	3
Minor or electives .....	6

### FOURTH YEAR

244-304, Home Management Theory .....	3
244-404, Resident or non-resident Home Management Laboratory ..	1
338-407, History of America .....	3
OR	
338-410, Modern World .....	3

421-401, Introduction to Guidance and Counseling .....	2
469-402, Principles of Vocational, Technical and Adult Education .....	2
442-404, Curriculum Development .....	5
442-408, Student Teaching .....	8
OR	
442-488, Internship Teaching .....	8
Minor or electives .....	8
Teaching Block**	8

\*A placement test in clothing will determine whether 214-118 is needed.

\*\*Student teaching may be taken either semester of the senior year. In order that the student may be free to teach in an off-campus school during second quarter of the semester, the courses starred above may be taken concurrently.

## HOME ECONOMICS--GENERAL

To prepare for a general background in Home Economics; to work with the Extension Service and utility companies.

### GENERAL REQUIREMENTS — BS DEGREE:

1. Total for graduation ..... 128 credits  
 Required in Liberal Studies ..... 45 credits  
 Required in Home Economics ..... 53 credits  
 Electives ..... 30 credits  
 Completion of electives may occur by the following options:
  - a. A minor, or
  - b. Two 15 or 16 credit blocks (See listing at end of curricula section) or
  - c. Free electives.
2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.
3. Work experience may be obtained through participation in the Field Experience program.

### OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

#### FIRST YEAR

Course	Credit
212-124, Child Development I .....	3
214-108, Clothing in a Contemporary World .....	3
214-118, Clothing Construction* .....	3
OR	
304-106, Fundamentals of Design .....	3
229-114, Food Science I .....	4
308-122, General Biology .....	3

308-214, Physiology and Anatomy .....	3
326-101-102, English Composition .....	6
368-128, Physical Education .....	2
391-106, Fundamentals of Speech .....	2
479-123, General Psychology .....	3

## SECOND YEAR

212-248, Family Health .....	2
OR	
308-442, Community Hygiene .....	2
214-118, Clothing Construction* .....	3
OR	
304-106, Fundamentals of Design .....	3
214-215, Textiles I .....	3
214-218, Advanced Clothing Construction .....	3
229-212, Nutrition .....	3
311-115, Inorganic Chemistry .....	5
320-201, General Economics .....	3
326—, Literature elective .....	3
Electives .....	7

## THIRD YEAR

212-264, Child Guidance .....	2
212-249, Family Relations I .....	3
229-308, Meal Management .....	3
244-317, Consumer Economics .....	3
304-334, Interior Design .....	3
326-346, Expository Writing .....	3
387-110, General Sociology .....	3
Home Economics electives** .....	6
Electives .....	7

## FOURTH YEAR

244-304, Home Management Theory .....	3
244-404, Resident or non-resident Home Management Laboratory ..	1
244-428, Family Finance .....	2
338-407, History of America .....	3
OR	
338-410, Modern World .....	3
Home Economics electives** .....	6
Electives .....	16

\*Pretest to determine need.

\*\*Select from two or more of the following areas: Child Development and Family Life, Clothing, Textiles and Design, Food Science and Nutrition, Home Management, Economics and Equipment, and Hotel-Restaurant Management.



# HOTEL AND RESTAURANT MANAGEMENT MAJOR

A program leading to a Bachelor of Science degree in Hotel and Restaurant Management is being offered by the School of Home Economics. The purpose of this program is to prepare students for management positions in the hotel, restaurant and operations related to the hospitality field. It is being established with the cooperation of the tourist industry in Wisconsin and other states in the north central region.

Students receive a broad education in liberal studies. A concentration of courses are offered in the area of business administration so that graduates will be prepared to serve in executive and managerial positions with specialized knowledge concerned with the hotel, restaurant and resort professions.

## GENERAL REQUIREMENTS—BS DEGREE:

- 1. Total for graduation ..... 128 credits  
Required in Liberal Studies ..... 48 credits  
Required in Business Administration ..... 20 credits  
Electives ..... 20 credits
- 2. The student must fulfill the English adequacy and speech proficiency requirements prescribed by the respective departments.
- 3. All students are required to work a total of two 12-week periods, 40 hours a week, in approved jobs during summer months or the academic year. The student must write a report on his work experience and a letter from the industry supervisor detailing work performance for each 12-week period is required. One summer must be spent in the Field Experience program—245-298.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
245-101, Introduction to Hotel and Restaurant Management .....	3
245-110, Basic Foods .....	4
311-115, Inorganic Chemistry .....	5
320-210-211, Principles of Economics .....	6
326-101-102, English Composition .....	6
367-127, Physical Education .....	2
391-106, Fundamentals of Speech .....	2
379-123, General Psychology .....	3

### SECOND YEAR

245-205, Maintenance and Sanitation .....	3
245-210, Commercial Cooking .....	3
148-101, Drafting .....	2
309-206-207, Principles of Accounting .....	6

309-330, Principles of Marketing .....	3
338-407-410, History of America or Modern World .....	3
355-120, Introductory College Math .....	4
Electives .....	4

## THIRD YEAR

245-301, Hotel and Restaurant Accounting .....	3
245-305, Hotel and Restaurant Management .....	3
245-310, Quantity Food Production .....	3
245-315, Food and Beverage Control .....	3
245-316, Merchandising and Sales .....	3
309-318, Business Law .....	3
309-325, Business Statistics .....	3
326-346, Expository Writing .....	3
387-110, General Sociology .....	3
Electives .....	6

## FOURTH YEAR

245-318, Food Service Equipment .....	2
245-320, Catering I .....	3
245-475, Advanced Food Production Management .....	3
245-465, Senior Seminar .....	3
309-340, Business Finance .....	3
326—, Literature elective .....	3
320-414, Labor Economics .....	3
479-435, Personnel Management .....	3
Electives .....	9

## INDUSTRIAL ARTS EDUCATION

(PREPARATION TO TEACH IN SECONDARY SCHOOLS)

## GENERAL REQUIREMENTS — BS DEGREE:

1. Total for graduation ..... 130 credits
  - Required in Liberal Studies ..... 52 credits
  - Required in Education ..... 22 credits
  - Required in Technical Work ..... 42 credits
  - Electives in Liberal Studies and/or Education ..... 14 credits
 Completion of one of the following options (elective credits in Liberal Studies and Education will be used to complete this requirement):
  - a. A 42 credit major in Industrial Education with one 22 credit Liberal Studies minor.
  - b. A broad field Major in Industrial Education consisting of 42 credits of technical work with two 15-credit academic blocks.
2. Work experience related to a concentration may be obtained through participation in the Field Experience program.
3. Students qualifying for Advanced Placement, Independent Studies, or Honors courses will make appropriate substitutions in the requirements listed.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
326-101-102, English Composition .....	6
391-106, Fundamentals of Speech .....	2
355-120-121, Introductory College Math I and II .....	8
479-123, General Psychology .....	3
387-110, General Sociology .....	3
367-127, Physical Education .....	2
366-101, Personal Health .....	1
148-101, Drafting .....	2
157-102, Metals .....	2
137-117, Introduction to Graphic Arts .....	2
196-103, Woodworking .....	2
449-160, Introduction to Industrial Education .....	1

### SECOND YEAR

326—, Writing elective .....	3
311-115, Inorganic Chemistry .....	5
320-201, General Economics .....	3
391—, Speech elective .....	2
421-222, Principles of Secondary Education .....	2
479-303, Educational Psychology .....	2
176-202, Power Mechanics .....	2
196-203, Plastics I .....	2
124-208, Electricity .....	2
150-290, Industrial Organization .....	2
Technical electives <sup>1</sup> .....	4
Electives in Liberal Studies or Education <sup>2</sup> .....	4

### THIRD YEAR

372-221, Physics I .....	5
375-311, Government .....	3
449-305, Methods of Teaching Industrial Education <sup>3</sup> .....	2
Technical Electives <sup>1</sup> .....	14
Additional Science elective .....	
372-223, 372-225, 311-436, 311-445, 157-418 .....	3
Electives in Liberal Studies and Education <sup>2</sup> .....	5

### FOURTH YEAR

338—, History elective .....	3
449-404, Curriculum Development .....	5
421-401, Introduction to Guidance and Counseling .....	2
449-408, Student Teaching .....	8
OR	
449-488, Intern Teaching .....	8
Technical electives <sup>1</sup> .....	8
Electives in Liberal Studies or Education <sup>2</sup> .....	5-6

<sup>1</sup>Technical electives will be selected in terms of area of technical concentration chosen.

<sup>2</sup>Electives will be chosen to complete one of two options. After option is complete electives may be used for either Liberal Studies or Education.

<sup>3</sup>Students must make application for admission to the Education sequence at this point. Candidates must hold a cumulative grade point average of at least 2.25 and meet the speech and English proficiency requirement as described in the professional education section of course descriptions.

## INDUSTRIAL TECHNOLOGY

Stout's Industrial Technology program prepares students for industrial positions in such areas as new product development, production process and facility planning, production scheduling and control of materials procurement. Other areas include determination of manufacturing methods and standards, materials and labor estimating, quality assurance, technical sales and service, and production supervision.

The program provides learning experiences to develop competencies in each of four broad areas:

1. Knowledge of the characteristics of materials and manufacturing processes.
2. Understanding of management principles and their application to industrial problems.
3. Awareness of sociological and psychological principles which are important in working with, communicating with, motivating and supervising people.
4. Skill in utilizing the mathematical and physical sciences to understand and solve technological and economic problems found in industry.

## GENERAL REQUIREMENTS — BS DEGREE:

1. Total for graduation ..... 130 credits
  - Required in Liberal Studies ..... 48-49 credits
  - Required in Professional ..... 46-50 credits
  - Electives ..... 32-35 credits
    - a. Technological Concentration ..... Minimum of 16 credits
    - b. Non-technical ..... Minimum of 11 credits
2. Electives should be selected to fulfill requirements for a specific concentration in Industrial Technology.
3. Work experience related to a concentration should be obtained through participation in the Field Experience program.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
326-101-102, English Composition .....	6
391-106, Fundamentals of Speech .....	2
150-290, Industrial Organization .....	2
367-127, Physical Education .....	2
366-101, Personal Health .....	1
355-120-121-153, College Mathematics I and II and Calculus I .....	12
OR	
355-156-157, Calculus and Analytical Geometry .....	10
Technical Foundation Courses .....	8

### SECOND YEAR

150-300, Production Management .....	3
320-210, Principles of Economics I .....	3
387-110, General Sociology .....	3
354-130, Computational Statistics .....	2
354-141, Digital Computer Programming .....	2
311-115, Inorganic Chemistry .....	5
372-221-223, Physics I and II .....	8
479-123, General Psychology .....	3
Technological Concentration electives .....	3-6

### THIRD YEAR

326—, Writing elective .....	3
391—, Advanced Speech elective .....	2
375-311, Government .....	3
OR	
338-101-407-410, History elective .....	3
150-413, Manufacturing Cost Analysis .....	3
150-424, Engineering Economy .....	3
320-414, Labor Economics .....	3
Science electives (from 311 or 372 series) .....	6
Technological Concentration electives .....	7-9
Non-technical electives .....	5-6

### FOURTH YEAR

150-450, Industrial Supervision .....	3
479-435, Personnel Management .....	3
Technological Concentration electives .....	6-12
Non-technical electives .....	5-6
Electives .....	6-14

## ELECTIVES IN TECHNOLOGICAL CONCENTRATION

(Minimum of 16 semester hours in one of the following)

Building Construction, Electronics, Graphic Arts Management, Manufacturing Engineering, Packaging, Plant Engineering, Product Development, Technical Sales and Service, and Technical Writing.

Non-Technical electives (Minimum of 11 semester hours required) 11 University coordinated field experiences in industry, related to the student's professional goal, are available during the summer. A year-round cooperative educational program is also available for selected students. Both programs carry academic credit.

Information on specific concentrations can be obtained by writing the Director of the Industrial Technology Major.

MARKETING AND DISTRIBUTIVE  
EDUCATION

(PREPARATION TO TEACH IN SECONDARY SCHOOLS  
OR TECHNICAL INSTITUTES)

## GENERAL REQUIREMENTS—BS DEGREE:

1. Total for graduation ..... 130 credits
  - Professional Education ..... 26 credits
  - Courses directly related to major ..... 34 credits
  - Required in Liberal Studies ..... 31 credits
  - Liberal Studies electives ..... 29 credits
  - Free electives ..... 10 credits
2. Students must complete:
  - a. a major with a 22-credit minor or
  - b. a major with two 15 credit blocks or
  - c. a double major—Marketing and Distributive Education and Business Administration. The student considering this option should anticipate some additional summer session work or an extra semester.
3. Students must complete a minimum of 6 months of related work experience. This work experience may be completed before entrance or by enrolling in the Field Experience program.

Due to the recent recognition of the importance and size of the marketing and distributive sector of our economy, this area of vocational education is experiencing a tremendous growth at both the high school and post-high school levels. Men and women graduates of this curriculum will not only be teachers of marketing and local business management subjects, but will also work very closely with the local business community.

OUTLINE OF COURSES FOR THE FOUR-YEAR  
PROGRAM

## FIRST YEAR

Course	Credit
326-101-102, English Composition .....	6
391-106, Fundamentals of Speech .....	2
367-127 or 368-128, Physical Education .....	2



479-123, General Psychology .....	3
304-106, Fundamentals of Design .....	3
391- —, Speech elective .....	2
387-110, General Sociology .....	3
366-101, Personal Health .....	1
150-290, Industrial Organization .....	2
Mathematics elective .....	4-5
Electives .....	4-5

## SECOND YEAR

320-210-211, Principles of Economics .....	6
421-222, Principles of Secondary Education .....	2
309-330, Principles of Marketing .....	3
309-206-207, Principles of Accounting .....	6
309-470, Principles of Advertising .....	3
479-303, Educational Psychology .....	2
309-245, Business Data Processing .....	3
Electives .....	8-10

## THIRD YEAR

375-311, Government .....	3
309-325, Business Statistics .....	3
469-402, Principles of Vocational, Technical and Adult Education .....	3
309-404, Salesmanship and Sales Management .....	3
416-304, Introduction to Teaching Distributive Education* .....	3
479-435, Personnel Management .....	3
309-423, Retail Merchandising and Management .....	3
Electives .....	8

## FOURTH YEAR

421-401, Introduction to Guidance and Counseling .....	2
416-404, Curriculum Development Distributive Education .....	5
416-408, Student Teaching Distributive Education .....	8
309-318, Business Law .....	3
309-479, Marketing Research .....	3
469-460, Cooperative Occupational Education Programs .....	2
Electives .....	7-9

\*Students must make application for admission to the education sequence at this point and meet the general requirements listed in the Professional Education section of course descriptions.

# PSYCHOLOGY

## GENERAL REQUIREMENTS — BS DEGREE:

Students with a completed major in psychology are to have basic understandings in these psychological concepts: Human relations, personality and mental health, perception, motivation and emotions, learning, development of individual differences, and the methods and instruments used to



study human behavior. Selection of electives, readings, and independent study topics should be based upon individual needs and interests in the above psychological concepts.

1. Total for graduation ..... 130 credits
  - Total in Psychology ..... 34 credits
  - Total in Academic Areas ..... 51-60 credits
  - Total electives ..... 36-45 credits
2. Additional Requirements:
  - One 22-credit minor as described in the catalog. English and Literature, 15 credits including 326-101, 102 and one of the following: 326-344, 346, 347. Mathematics and Science, 15 credits including 355-120 or equivalent. History and Social Studies, 15 credits including 387-110. French, 8 credits 328-101 and 102. (Two units of high school foreign language may be substituted for French) Personal Health and Physical Education, 2 or 3 credits. Speech, 4 credits, including 391-106 and one of the following: 391-223, 391-320, 391-322, 391-325.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
479-123, General Psychology .....	3
479-214, Personality and Mental Health .....	3
326-101-102, English Composition .....	6
328-101-102, Elementary French .....	8
366-101, Personal Health — Men .....	1
367-127 or 368-128, Physical Education .....	2
391-106, Fundamentals of Speech .....	2
Free electives to complete a program	

### SECOND YEAR

479-263, Experimental Psychology .....	3
355-120, Introductory College Math I or Equivalent .....	4
354-130, Computational Statistics .....	2
387-110, General Sociology .....	3
391-223, 320, 322 or 325, Speech .....	2
479—, Psychology electives .....	6
Liberal Studies electives .....	6
Free electives to complete minor, requirements in general education, and stated goals in psychology.	

### THIRD YEAR

479-303, Educational Psychology .....	2
OR	
479-352, Child Psychology .....	3
326-344, 346 or 347, English .....	3
387-350, Social Psychology .....	3
479—, Psychology electives .....	9
Liberal Studies electives .....	9
Free electives to complete minor, requirements in general education, and stated goals in psychology.	

FOURTH YEAR

479-490, Aptitude and Achievement Appraisal .....	2
479—, Psychology electives .....	8-9
Free electives to complete minor, other requirements and stated goals in general education and in psychology.	

Psychology electives to choose from in the four years: 479-326, 479-350, 479-358, 479-366, 479-430, 479-431, 479-432, 479-435, 479-455, 479-475, 479-491, 387-350, 303-420, Field Experience and Independent Study.

TECHNICAL EDUCATION  
ELECTRONICS CONCENTRATION

(PREPARATION TO TEACH IN TECHNICAL INSTITUTES)

GENERAL REQUIREMENTS — BS DEGREE:

- 1. Completion for graduation ..... 130 credits  
Required in Liberal Studies ..... 57-63 credits  
Required in Education ..... 22 credits  
Required in Technical Work ..... 40 credits  
Electives in Liberal Studies ..... 5-11 credits
- 2. Completion of twelve months of related industrial experience.
- 3. Work experience related to a concentration can be obtained through participation in the Field Experience program.
- 4. Students qualifying for Advanced Placement, Independent Studies, or Honors courses will make appropriate substitutions in the requirements listed.

OUTLINE OF COURSES FOR THE FOUR-YEAR  
PROGRAM

FIRST YEAR

Course	Credit
355-120-121, College Math I and II .....	8
OR	
355-156-157, Calculus and Analytical Geometry .....	10
326-101-102, English Composition .....	6
391-106, Fundamentals of Speech .....	2
367-127, Physical Education .....	2
366-101, Personal Health .....	1
449-160, Introduction to Industrial Education .....	1
372-221, Physics I .....	5
150-290, Industrial Organization .....	2
148-101, Drafting .....	2
157-102, Metals .....	2
176-202, Power Mechanics .....	2

## SECOND YEAR

355-153-154, Calculus .....	8
OR	
355-255, Differential Equations .....	3
354-141, Digital Computer Programming .....	2
479-123, General Psychology .....	3
372-223, Physics II .....	3
338-—, History Elective .....	3
311-115, Inorganic Chemistry .....	5
124-208, Electricity .....	2
124-228, DC and AC Circuit Analysis .....	3
124-322, Electronic Circuits .....	3
124-326, Semiconductor Electronics .....	3
Field Experience — 3 months (summer) .....	—

## THIRD YEAR

355-255, Differential Equations .....	3(1)
326-—, Writing elective .....	3
OR	
326-416, Technical Writing for Industry .....	3
469-402, Principles of Vocational, Technical and Adult Education .....	2
479-303, Educational Psychology .....	2
449-305, Methods of Teaching Industrial Education .....	2
Elective (Economics, Sociology, or Government) .....	3
Elective (Economics, Sociology, or Government) .....	3
124-424, Network Analysis .....	3
Electronic electives .....	9
Field Experience — 3 months (summer) .....	—

## FOURTH YEAR

449-404, Curriculum Development .....	5
421-401, Introduction to Guidance and Counseling .....	2
449-408, Student Teaching .....	8
Electronic elective .....	6
Liberal Studies elective .....	8-14
Seminar in Electronics .....	0
Applied Science and Technology elective .....	2
Candidates must hold a cumulative grade point average of at least 2.25 and meet the speech and English proficiency requirements as described in the professional education section of course descriptions.	

## TECHNICAL EDUCATION

MECHANICAL DESIGN CONCENTRATION  
(PREPARATION TO TEACH IN TECHNICAL INSTITUTES)

## GENERAL REQUIREMENTS — BS DEGREE:

1. Completion for graduation .....	130 credits
Required in Liberal Studies .....	56-60 credits

- |                                    |              |
|------------------------------------|--------------|
| Required in Education .....        | 22 credits   |
| Required in Technical Work .....   | 39 credits   |
| Electives in Liberal Studies ..... | 9-13 credits |
2. Completion of one year of related certifiable industrial experience.
  3. Work experience related to a concentration should be obtained through participation in the Field Experience program.
  4. Students qualifying for Advanced Placement, Independent Studies, or Honors courses will make appropriate substitutions in the requirements listed.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
355-120-121, College Math I and II .....	8
OR	
355-156-157, Calculus and Analytical Geometry .....	10
326-101-102, English Composition .....	6
391-106, Fundamentals of Speech .....	2
367-127, Physical Education .....	2
150-290, Industrial Organization .....	2
449-160, Introduction to Industrial Education .....	1
148-101, Drafting .....	2
366-101, Personal Health .....	1
372-221, Physics I .....	5
148-224, Descriptive Geometry .....	3
148-102, Mechanical Drafting .....	2

### SECOND YEAR

355-153, Calculus I .....	4
479-123, General Psychology .....	3
372-223, Physics II .....	3
124-208, Electricity .....	2
148-250, Mechanisms .....	3
320-201, General Economics .....	3
311-115, Inorganic Chemistry .....	5
102-310, Materials .....	2
326-—, Writing elective .....	3
OR	
326-416, Technical Writing for Industry (Recommended) .....	3
Technical elective .....	2
Field Experience — 3 months (summer) .....	—

### THIRD YEAR

157-102, Metals .....	2
469-402, Principles of Vocational, Technical and Adult Education .....	2
479-303, Educational Psychology .....	2
372-331, Physics — Mechanics I .....	3
354-141, Digital Computer Programming .....	2
148-301, Machine Design Elements .....	3

372-225, Physics — Strength of Materials .....	3
102-123, Processes I .....	4
338—, History elective .....	3
157-418, Metallurgy .....	3
372-333, Physics — Mechanics II (Dynamics) .....	3
375-311, Government .....	3
449-305, Methods of Teaching Industrial Education .....	2
Technical elective .....	3
Field Experience — 3 months (summer) .....	—

## FOURTH YEAR

449-404, Curriculum Development .....	5
421-401, Introduction to Guidance and Counseling .....	2
148-401, Mechanical Design Problems .....	3
449-408, Student Teaching .....	8
Academic electives .....	7-9-11
Technical elective .....	2

## VOCATIONAL REHABILITATION

This is a new program leading to a bachelor of science degree in vocational rehabilitation. The purpose of the program is to prepare students with a combination of technical, social science, and rehabilitation knowledge and skills in order to assist disabled and disadvantaged persons in reaching their maximum potential for employment. The curriculum provides courses in liberal studies, technical areas, psychology, sociology, and vocational rehabilitation. Electives provide the student with the opportunity to pursue special areas of interest.

The program is being developed with the cooperation of the federal-state vocational rehabilitation program and with private rehabilitation facilities. Opportunities to engage in a vital social service area are available in state vocational rehabilitation agencies, state agencies for the blind, private rehabilitation agencies, thousands of private rehabilitation facilities, veteran administration hospitals, institutions for the mentally ill and the mentally retarded, correctional institutions, hospitals for the alcoholic and the narcotic addict, programs concerned with the hard core unemployed, and private enterprise concerned with preparing disabled and disadvantaged persons for employment.

Other special competency areas may be substituted for the industrial education and technology courses listed below.

## GENERAL REQUIREMENTS — BS DEGREE:

1. Total for graduation .....	130 credits
Required in Liberal Studies .....	44 credits
Electives in Liberal Studies .....	9 credits
Required in Technical Work .....	24 credits
Required in Psychology .....	12 credits
Required in Sociology .....	9 credits

- Required in Vocational Rehabilitation ..... 16 credits  
 Free electives ..... 16 credits
2. Students are urged to obtain work experience related to vocational rehabilitation.

## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
326-101-102, English .....	6
391-106, Fundamentals of Speech .....	2
366-101, Personal Health .....	1
366-127, Physical Education .....	2
479-123, General Psychology .....	3
387-110, General Sociology .....	3
355-120, College Math I .....	4
308-122, General Biology .....	3
137-117, Introduction to Graphic Arts .....	2
124-208, Electricity .....	2
148-101, Drafting .....	2
Liberal Studies Electives .....	3

### SECOND YEAR

326-346, Expository Writing .....	3
320-201, General Economics .....	3
308-214, Physiology and Anatomy .....	3
459-201, Introduction to Vocational Rehabilitation .....	3
148-102, Mechanical Drafting .....	2
157-102, Metals .....	2
157-113, Machine Shop .....	2
176-202, Power Mechanics .....	2
176-242, General Motor Mechanics .....	2
196-103, Woodworking .....	2
479-366, Psychology of Learning .....	3
Liberal Studies electives .....	3
Free electives .....	2-5

### THIRD YEAR

372-221, Physics I .....	5
375-311, Government .....	3
196-203, Plastics I .....	2
459-301, Community Resources .....	2
459-302, Group Work with Handicapped .....	2
124-310, Electronics .....	2
387-475, Sociology of Minority Groups .....	3
479-431, Abnormal Psychology .....	3
338-410, Modern World .....	3
Liberal Studies electives .....	3
Electives .....	4-6



## FOURTH YEAR

150-215, Packaging Fundamentals .....	2
459-403, Physical Disability and Work .....	3
459-401, Vocational Evaluation Methodologies .....	4
459-402, Placement and Training the Handicapped .....	2
479-490, Aptitude and Achievement Appraisal .....	2
479-491, Psychology of Careers .....	2
387-460, Juvenile Delinquency .....	3
479-430, Industrial Psychology .....	2
387-440, Sociology of Work .....	3
Electives .....	5-10

## VOCATIONAL TRADE AND INDUSTRIAL EDUCATION

(PREPARATION TO TEACH IN VOCATIONAL SCHOOLS)

### GENERAL REQUIREMENTS — BS DEGREE:

1. Completion for graduation ..... 130 credits  
 Required in Liberal Studies ..... 51-52 credits  
 Required in Education ..... 24 credits  
 Required in Technical Work ..... 42 credits  
 Electives in Liberal Studies and/or Education ..... 12-13 credits  
 Completion of one of the following options (elective credits in Liberal Studies and Education will be used to complete this requirement):
  - a. A 42 credit major in Industrial Education with one 22 credit Liberal Studies minor (see list of minors by departments).
  - b. A Broad Field Major in Industrial Education consisting of 42 credits of Technical work with two 15-credit academic blocks (see list of academic blocks).
2. A student must obtain a minimum of one year of appropriate work experience for provisional certification to teach Vocational, Trade and Industrial Courses. This requirement must also be met before a degree can be granted.
3. Work experience related to a concentration may be obtained through participation in the Field Experience program.
4. Students qualifying for Advanced Placement, Independent Studies, or Honors courses may make appropriate substitutions in the requirements listed.
5. Appropriate education, beyond that required, may be used to substitute for up to two-thirds of the work experience requirement (see program director).



## OUTLINE OF COURSES FOR THE FOUR-YEAR PROGRAM

### FIRST YEAR

Course	Credit
326-101-102, English .....	6
391-106, Fundamentals of Speech .....	2
355-120-121, Introduction to College Mathematics .....	8
479-123, General Psychology .....	3
387-110, General Sociology .....	3
367-127, Physical Education .....	2
366-101, Personal Health .....	1
Technical electives <sup>1-4</sup> .....	8

### SECOND YEAR

326—, Writing elective .....	3
311-115, Inorganic Chemistry .....	5
320-201, General Economics .....	3
391—, Speech elective .....	2
421-222, Principles of Secondary Education .....	2
479-303, Educational Psychology .....	2
Technical electives <sup>1-4</sup> .....	12
Electives in Liberal Studies or Education <sup>2</sup> .....	4

### THIRD YEAR

372-221, Physics I .....	5
375-311, Government .....	3
449-305, Methods of Teaching Industrial Education <sup>3</sup> .....	2
Technical electives <sup>1-4</sup> .....	14
Additional Science elective:	
372-223, 372-225, 311-436, 311-445 .....	3
Electives in Liberal Studies and Education <sup>2</sup> .....	5

### FOURTH YEAR

338—, History elective .....	3
449-404, Curriculum Development .....	5
421-401, Introduction to Guidance and Counseling .....	2
449-408, Student Teaching .....	8
469-402, Principles of Vocational, Technical, and Adult Education .....	2
Technical electives <sup>1-4</sup> .....	8
Electives in Liberal Studies or Education <sup>2</sup> .....	3-4

<sup>1</sup>Technical electives will be selected in terms of area of technical concentration chosen.

<sup>2</sup>Electives will be chosen to complete one of two options. After option is complete, electives may be used for either Liberal Studies or Education.

<sup>3</sup>Students must make application for admission to the education sequence at this point. Candidates must hold a cumulative grade point average of at least 2.25 and meet the speech and English proficiency requirements as described in the professional education section of course descriptions.

<sup>4</sup>Technical courses are to be selected by advisor and student to best meet the individual student's needs. (Up to 24 credits may be earned by a student who has had appropriate previous work experience.)

## MINORS

Art	History	Psychology
Biology	Journalism	Safety
Chemistry	Mathematics	Sociology
Economics	Physical Education (Women)	Speech
English	Physics	

Minors are defined as teaching and non-teaching. Teaching minors are those approved by the State Department of Public Instruction for certification. A graduate can be certified for a teaching minor, however, only if he has an education major. Programs for minors must be approved by the department offering the minor.

### ART (04)

Twenty-two semester hours are required. Required courses are 304-106, 304-200, 304-300, 304-320, and 304-390. The additional 7 credits may be accumulated for a 22 credit minor by taking any studio or art history courses offered by the Art department.

### BIOLOGY (08)

A minor in biology may be completed as a teaching or a non-teaching minor. A teaching minor consists of 22 semester hours of biology plus one semester of inorganic chemistry (311-115, or 311-135). The required courses in biology are 308-122, 308-214, 308-306, 308-314, and 308-316. Additional courses to complete 22 semester hours of biology will be selected.

A non-teaching minor consists of 22 semester hours of biology. The required courses in biology are 308-122, 308-214, 308-306, 308-314, and 308-316. Additional courses to complete 22 semester hours of biology will be selected. Inorganic chemistry is not required for the non-teaching biology minor.

All students entering a minor program in biology will be assigned a faculty advisor to aid the student in proper scheduling of courses.

### CHEMISTRY (11)

Twenty-two semester hours are required. Required courses are 311-115 or 311-135, 311-136, and 311-208. Additional chemistry courses will be selected.

## ECONOMICS (20)

Students may elect 22 credit minor in Economics either for teaching or non-teaching.

Required courses are 320-210, 320-211, 320-459, and 320-460. Additional economics courses and 309-325, 387-401 will be elected.

## ENGLISH (26)

A minor in English consists of 22 semester hours. All English minor programs must be approved by the Department of English.

Students who wish to be certified to teach English must take a teaching minor in English. A teaching minor in English must include the following courses: 326-340, The Structure of English; 326-344, Contemporary Rhetoric; 326-348, American Literature; and 326-400 and 401, English Literature. Additional English courses, excluding 326-101 and 102, Freshman English, will be selected; 326-111 and 112 (Honors) English, may be included. One course in Speech, either 391-320, Advanced Speech Activities; 391-340, Contemporary Theatre; or 391-444, Play Production, may be included.

A non-teaching minor in English, for those who do not wish to be certified to teach, is taken with an option in either literature or writing.

The non-teaching English minor with an option in literature includes 326-347, Critical Writing; 326-400 and 401, English Literature; 326-402, Concepts of Literary Criticism; and a minimum of 10 semester hours in literature.

The non-teaching minor in English with an option in writing includes courses from the following blocks: (1) language (a minimum of 3 semester hours), (2) literature (a minimum of 6 semester hours), and (3) writing (a minimum of 11 semester hours).

## JOURNALISM (26)

Twenty-two semester hours are required. Required courses are 326-306, 326-318, 326-410, 326-415 or 416, 326-425, 421-479, 137-117, and 107-404. Additional courses will be selected from 326 — (any literature course numbered 200 or above), 304-106, Fundamentals of Design; 137-361, Printing Design; 137-449, Printing Economics; 375-311, Government; 338-407, History of America; 338-410, Modern World; 387-411, Problems of American Society; 375-417, American Politics; 391-470, Television Programming and Performance; 391-250, Radio Programming and Production; Field Experience and Independent Study.

## HISTORY (38)

Students may elect 22 credit minor in history either for teaching or non-teaching. Required courses are 338-101, 338-102, 338-151, 338-152, and 338-410. Additional history courses will be elected.

Students who take teaching minor in history must include two out of the following courses: 338-422, 338-423, and 338-435.

## MATHEMATICS (54-55)

Twenty-two semester hours are required. Minor programs are to be approved by the department. Courses required for teaching certification are: 355-153 or 355-156, 355-265, 355-275, 355-331, and 355-470. Additional courses will be selected.

## PHYSICAL EDUCATION — WOMEN (68)

Twenty-two semester hours are required. Required courses are 368-215, 368-225, and 226, 368-235, 368-245, 366-240, 366-420, 308-214, and 308-442. Additional physical education courses will be selected. For teacher certification in physical education the student must also take Teaching Methods in Physical Education, 366-408. The 2 credit freshman requirement is not part of the minor.

## PHYSICS (72)

Twenty-two semester hours are required. Required courses are 372-221, 372-223, 372-327, and 372-329. Additional physics courses will be selected. 124-424, Network Analysis, may be included.

## PSYCHOLOGY (79)

Twenty-two semester hours are required. Required courses for 11 semester credits include: 479-123, 479-214 or 479-431, 354-130 or 479-490, 479-352 or 479-350. Courses from which to select 11 semester credits: 479-263, 479-303, 479-358, 479-366, 387-350, 303-420, 479-430, 479-432, 479-435, 479-475, 479-491, 479-326, Field Experience and Independent Study.

## SAFETY (82)

Twenty-two semester hours are required. Required courses are 182-423, 182-448, 182-452, and 182-455. Ten additional credits should be selected from the following courses: 176-242, 366-101, 479-303, 407-460, 449-304, 421-401.

## SOCIOLOGY (87)

Twenty-two semester hours are required. Required courses are 387-110, 387-350, 387-411, and 303-420. Additional sociology courses will be selected. 479-326, Psychology of Marriage and the Family, may be included.

## SPEECH (91)

A teaching minor in speech consists of 22 semester hours. Required courses are 391-106 and 391-223. Additional speech courses will be selected. One course in English, either 326-348, 326-350, 326-360, 326-400, 326-401, or 326-406, may be included.

A non-teaching minor consists of 22 semester hours, with the four following options: General Speech, Communication and Public Address, Radio-Television-Film, and Theatre. Each minor includes a minimum of 10 semester hours in the option, plus 12 semester hours from the remaining three areas. A literature course may be included.

All speech minors must be planned with and approved by the Speech Department.

## BLOCKS

### HOME ECONOMICS

Fifteen credit blocks are available in English and Speech, Mathematics, Journalism, Art, Science, Psychology, and Social Science. After selecting an area of concentration, students must consult with their advisor to work out the most beneficial program.

### INDUSTRIAL EDUCATION AND VOCATIONAL EDUCATION

Fifteen credit blocks are available in Communications, Mathematics, Science, Social Science, Art, and Psychology. After selecting an area of concentration, students must consult with their advisor to work out the most beneficial program.



## THE COURSE DESCRIPTIONS

Descriptions of all the courses offered by Stout State University are listed on the pages immediately following. They are listed in number order by departments within the four schools of the university—Applied Science and Technology, Home Economics, Liberal Studies, and Education. Exceptions are noted. Each course description contains the name of the course, the number, prerequisites, if any, and a brief explanation of the course.

### SCHOOL OF APPLIED SCIENCE AND TECHNOLOGY (1)

HERBERT A. ANDERSON, ED.D., DEAN

#### Departments:

American Industry (02)  
Audio-Visual Education (07)  
Electronics (24)  
Graphic Arts (37)  
Industrial Graphics (48)

Industrial Technology (50)  
Metals (57)  
Power Technology (76)  
Safety (82)  
Wood Technics (96)  
Industrial Teacher Ed. (449)

## SPECIAL OFFERINGS

### INDUSTRIAL CRAFTS

100-253

2 Cr.

Study of craft industries including tool, processes, products from leather, fiber, metal, and wood material. Laboratory work in the use of above materials.

### AEROSPACE WORKSHOP (#3)

100-481

2-3 Cr.

Classroom, field and optional flight experiences for educators who wish a better understanding of today's aviation or aerospace industries, details of space exploration, federal licensing regulations, air traffic control, and related career guidance information. Prerequisite: College standing or permission of director.

### PROCESS COLOR SEPARATION WORKSHOP (#4)

100-481

1 Cr.

Specialized study of color correction by proper design and utilization of masks. Lecture and lab sessions conducted by Eastman Kodak to give a working knowledge of this aspect of color separation to persons having a basic understanding of half-tone photography.

### PULSE AND SWITCHING CIRCUITS (#5)

100-481

2 Cr.

A study of linear wave shaping, pulse transformers and delay lines, steady state switching, clamping and clipping circuits, switching circuits, logic circuits, multivibrators, time base generators. Sampling gates. Some laboratory work is required. Prerequisites: Network Analysis, Semiconductor Electronics.

### APPLIED SCIENCE & TECHNOLOGY PRODUCTION LAB (#6)

100-481

2 Cr.

A study which will interrelate all the concepts of American Industry by planning, organizing, developing and marketing a product. Prerequisite: Permission of American Industry Staff.

### SEMICONDUCTOR ELECTRONICS (#7)

100-481

2 Cr.

Semiconductory Diodes, silicon control rectifiers, transistor characteristics, amplifiers, oscillators, multivibrators, and other circuits using semiconductor devices. Prerequisites: Knowledge of fundamentals of DC and AC and consent of instructor.



## FLUID POWER COMPONENTS AND CIRCUITS (#8)

100-481

4 Cr.

An introduction to the fluid power field. Content is designed to establish a basic knowledge of the theory, operation, and construction of common fluid power system components. Basic industrial fluid power circuits will be analyzed to familiarize the students with component application. Basic systems design exercises using a problem solving approach will allow the student to apply theory to practical machine applications. Hydraulic, pneumatic, and fluidic materials will be discussed.

## APPLICATIONS OF FLUID MECHANICS (#9)

100-481

2 Cr.

An analysis of the various laws and principles involved in fluid flow in fluid power systems. Applications to fluid power components and circuits will be stressed. The student will be introduced to materials relating to fluid statics; Bernoulli's equation; flow through orifices, nozzles, and pipes; and compressible flow.

## FLUID POWER INSTRUCTIONAL RESOURCES (#10)

100-481

2 Cr.

Analysis of existing instructional materials in the fluid power field and construction of materials for special applications as determined by student needs. The student will be introduced to existing materials and will evaluate each in terms of individual situations. Instruction in course construction, activity planning, and audio-visual techniques will be provided. Each student will be expected to develop course materials and visual media to fit a typical instructional situation on the secondary, technical institute, or college level.

## SEMICONDUCTOR ELECTRONICS (#11)

100-481

2 Cr.

Semiconductor diodes, silicon control rectifiers, transistor characteristics, amplifiers, oscillators, multivibrators and other circuits using semiconductor devices. Prerequisites: Knowledge of fundamentals of DC and AC and consent of instructor.

## AMERICAN INDUSTRY (02)

## INTERDISCIPLINARY SEMINAR

102-100A,B,C,D,E,F

0 Cr.

Integration of knowledges gained from disciplinary studies. Papers prepared upon a contemporary theme, presented, and defended before faculty disciplinarian. Open discussion based upon papers, faculty reactions, stated positions of faculty.

## STRUCTURES AND CONCEPTS IN AMERICAN INDUSTRY

102-115

2 Cr.

An introduction to American Industry structures and concepts; history of the project. Systems for structuring knowledge. The concept structure of research.

## PROCESSES I

102-123

4 Cr.

Conceptual study, including application, of the area of industrial processes generated by the basics of growing, extraction, conditioning, and combining.

## COMMUNICATIONS

102-210

2 Cr.

Development of the concept area of communication source, message, receiver, feedback, and interference; study of graphic, electronic, human and media systems of communication.

## TRANSPORTATION

102-214

2 Cr.

Development of the concept area of transportation as related to the need, preparation, methods, destination and control as it relates to American Industry.

## RELATIONSHIPS IN INDUSTRY

102-223

2 Cr.

Development of the concept area of industrial relationships as related to the elements, associations, incentives and control aspects.

## FIELD EXPERIENCE

102-298

2 Cr.

Study and work related to student's major in a position approved by department chairman and field experience director. Written report, oral seminar presentation, plus evaluation by supervisor.

## MATERIALS

102-310

2 Cr.

Development of the concept area of materials as related to the approach being taken by industry. Students become involved in selection, utilization and testing different systems.

## PHYSICAL FACILITIES

102-402

2 Cr.

A conceptual study of the holdings and possessions of an enterprise necessary to produce a goods and/or service. It is designed to acquaint the students with the methods and techniques utilized by industry in planning, classifying, controlling, maintaining and disposing of property within their possession. The course will permit the students to plan and develop an instructional facility with equipment essential to the understanding and simulation of industrial techniques.

## FINANCE AND PROCUREMENT IN INDUSTRY

102-417

2 Cr.

A conceptual study of the considerations and techniques involved in procuring and controlling necessary funds and property essential to organize and operate an enterprise. The course is designed to provide the students with an insight into the location, needs, methods and control of funds and possessions necessary to maintain an enterprise.

## PROCESSES II

102-423

1 Cr.

Conceptual study, including application, of the area of industrial processes generated by the basics of growing, extracting, conditioning, and combining with particular emphasis on conditioning and combining.

## ENERGY IN INDUSTRY

102-438

2 Cr.

Conceptual study, including application and experimentation of the environmental quality which provides the ability or capacity to do work.

## AUDIO-VISUAL (07)

## ELEMENTARY PHOTOGRAPHY

107-404

2 Cr.

Fundamentals of photography including basic theory and technical information, composition, film processing, contact printing, enlarging, and mounting. Each student required to provide camera and film.

## ADVANCED PHOTOGRAPHY

107-405

2 Cr.

Advanced monochromatic photography including camera techniques, composition, lighting, selection of photographic materials, film development, contact printing, enlarging, toning and application. Prerequisite: 107-404.

## COLOR PHOTOGRAPHY

107-445

2 Cr.

Fundamentals of color photography including color theory, composition, multilayer films, color film processing, color printing, and application. Prerequisite: 107-404.

(Additional Audio Visual courses may be found in the School of Education.)

## ELECTRONICS (24)

## ELECTRICITY

124-208

2 Cr.

Principles of electricity as applied to power generation distribution and use. A study of direct and alternating current circuits, controls, capacitance, induction, transformers, polyphase systems, and measurement of electrical quantities. Prerequisite: Trigonometry 355-113.

## D. C. AND A. C. CIRCUIT ANALYSIS

124-228

3 Cr.

Circuit theorems, applications of complex algebra, resistive circuit analysis, A. C. circuit analysis, bode plot, transient analysis, and transformer analysis. This is a theoretical course; no laboratory is required. Prerequisite: 124-208.

**ELECTRONICS**

124-310

2 Cr.

Solid state rectifiers, amplifiers, oscillators and associated input and output devices. Concepts of electronic communications and application of equipment to selected problems are also studied. Prerequisite: 124-208.

**ELECTRONIC CIRCUITS**

124-322

3 Cr.

General electronic circuits, amplifiers, oscillators, wave-shaping circuits, power supply circuits and instrumentation. Laboratory work is required. Prerequisite: 124-228.

**SEMICONDUCTOR ELECTRONICS**

124-326

3 Cr.

An analytical study of semiconductor physics, P-N junction diodes, CE, CB, CC configuration analysis, biasing and stabilization, graphical analysis, Z, Y, H and G equivalent circuit, T-models, R. F., A. F., and D. C. circuit analysis. Laboratory work is required. Prerequisite: 124-228.

**ELECTRIC MACHINERY**

124-352

3 Cr.

Energy conversion theory, rotating machinery concept, engineering consideration, D. C. motors, synchronous machines, induction machines, fractional horsepower motors and speed control techniques of motors. Prerequisite: 124-228.

**BASIC INSTRUMENTATION AND CONTROL**

124-412

2 Cr.

Principles and practices of measurement and industrial control. Open and closed loop control system of control are studied. Transducers, analog to digital converters, and automatic read out systems are presented. Prerequisite: 124-310.

**ELECTRONIC COMMUNICATION**

124-414

2 Cr.

A study of electronic communication systems to the depth where the student will understand the function, principle of operation, application, and limitations of each system. Prerequisite: 124-310.

**NETWORK ANALYSIS**

124-424

3 Cr.

A theoretical approach of electrical network analysis. Network equations, LaPlace transformation, frequency domain analysis, applied differential equations, steady state and transient analysis. Prerequisite: Calculus 124-228.

**INFORMATION THEORY**

124-440

3 Cr.

Electronic communication theories, information transmission, network responses to signals, modulation systems, demodulation systems, amplitude modulation, double sideband, single sideband, narrow band frequency modulation, wide band frequency modulation systems, periodic sampling pulse modulation and demodulation, and noise analysis. Laboratory work is required. Prerequisite: 124-424, 124-326.

**COMMUNICATION SYSTEMS I**

124-444

3 Cr.

An analytical study of communication transmission and receiving systems, the circuits and design techniques of systems, signal transmission systems, signal receiving systems, and applied techniques. Laboratory work is required. Prerequisite: 124-440.

**COMMUNICATION SYSTEMS II**

124-446

3 Cr.

An analytical study of antenna systems, electromagnetic field theory, low frequency antenna, high frequency antenna theory and design, radio frequency transmission lines and graphical synthesis of impedance matching networks. Laboratory work is required. Prerequisite: 124-444.

**ELECTRONIC CONTROL SYSTEMS**

124-454

3 Cr.

General electronic control systems, sensing devices, control devices, sequence control, basic feedback control principles, analog computation and control, numerical controls. Laboratory work is required. Prerequisites: 124-352, 124-424.

**FEEDBACK CONTROL SYSTEMS**

124-458

3 Cr.

Models and equations of linear system, feedback control components, general theory, response of feedback systems, the Nyquist criterion, Bode plot analysis, polar plots, frequency response, root-loci techniques, non-linear system analysis. Laboratory work is required. Prerequisite: 124-454.

**PULSE AND SWITCHING CIRCUITS**

124-462

3 Cr.

Linear wave shaping, pulse transformers and delay lines, steady state switching, clamping and clipping circuits, switching circuits, logic circuits, multivibrators, time base generators, sampling gates. Laboratory work is required. Prerequisite: 124-228.

**COMPUTER SYSTEMS**

124-464

3 Cr.

An analytical study of electronic circuit design, philosophy of circuit design, general design procedures, C.C. and low frequency design, high frequency design, digital circuit design, switching circuit design, power supply, analog computer design, circuit evaluation techniques. Laboratory work is required. Prerequisite: 124-462.

**ELECTRONIC CIRCUIT DESIGN**

124-476

3 Cr.

An analytical study of electronic circuit design, the philosophy of circuit design, general design procedures, DC and low frequency design, high frequency design, digital circuit design, switching circuit design, power supply, analog computer circuit design, and the circuit evaluation techniques. Some laboratory work is required. Prerequisites: 124-462, 124-424.

## GRAPHIC ARTS (37)

### INTRODUCTION TO GRAPHIC ARTS

137-117

2 Cr.

Broad concepts of the several methods of reproducing visual images. Includes study in design and layout, composition methods, photo-conversion techniques, image carrier devices, image transfer mechanisms, finishing and binding procedures, and economic highlights of the graphic arts.

### COPY PREPARATION

137-214

2 Cr.

Review of the various printing mediums, art, photography, typography, layout, type, composition, platemaking, presswork, and bindery as related to the preparation of copy for reproduction. Laboratory experiences with the various materials and techniques used in preparing copy. Prerequisite: 137-117 or consent of instructor.

### IMAGE TRANSFER

137-236

3 Cr.

A study in breadth of offset, letterpress, gravure, and screen process machines and associated procedures used to transfer an image from a carrier to an interceptor. Prerequisite: 137-117 or consent of instructor.

### COLD TYPE

137-255

2 Cr.

An introduction to cold type composition. Basic elements of hand composition and simple strike-one, paste-on, and photo-lettering devices.

### HOT TYPE

137-257

2 Cr.

The mechanism, care, and operation of hot metal casting and composing machines. Prerequisite: 137-255 or consent of instructor.

### IMAGE CARRIERS

137-358

2 Cr.

A study of the various types of relief, intaglio, planographic and stencil image carriers, with lab experiences in photographic, chemical and electronic scanning methods of producing line, halftone, and combination plates. Prerequisite: 137-117 or consent of instructor.

### PRINTING DESIGN

137-361

3 Cr.

The study of two-dimensional design and its relationship to graphic reproduction in terms of balance, contrast, color, form and texture for specified communications.

### GENERAL BINDING

137-370

2 Cr.

Study in depth of fastening and covering printed materials. Includes mechanical, loose-leaf, wire staple, sewn, and perfect binding methods.



## LINE AND HALFTONE PHOTOGRAPHY

137-376

2 Cr.

A study of high contrast photography as it relates specifically to the graphic reproduction processes. Emphasis is upon line, halftone, duotone, and special effect film negatives and positives. Prerequisite: 137-117 or consent of instructor.

## PRINTING ECONOMICS

137-449

2 Cr.

Estimating production costs, specification of equipment, materials inventory and control, and the study of systems which expedite graphic reproductions. Prerequisite: 137-117 or consent of instructor.

## COLOR SEPARATION

137-450

2 Cr.

Study of the nature of color and light. Color separation from reflected and transmission copy. Theory of filters, densitometry, and their relation to color separation. Direct and indirect photographic color separation methods. Prerequisite: 137-376 or consent of instructor.

## RELIEF AND SCREEN PROCESSES

137-459

2 Cr.

Study in depth of letterpress and screen process image transfer machines and associated procedures including printability of varied interceptors. Prerequisite: 137-236.

## INDUSTRIAL GRAPHICS (48)

## DRAFTING

148-101

2 Cr.

Introductory graphics including the following: drafting techniques, free-hand sketching, lettering, multiview projections, auxiliaries, sections, dimensions, pictorial representation. American Standards Association procedures emphasized.

## MECHANICAL DRAFTING

148-102

2 Cr.

An overview of mechanical drafting, which utilizes the current practices of industry, in covering the topics of projections, pictorial representation, sketching, dimensioning, sections, auxiliaries, fasteners, working drawings, related drawings, reproduction processes, and basic design problems. Prerequisite: 148-101.

## DESCRIPTIVE GEOMETRY

148-224

3 Cr.

The graphic representation and solution of space problems involving point, lines, planes, intersections, revolutions, and vectors. Prerequisite: 148-101.



**TECHNICAL ILLUSTRATING**

148-226

3 Cr.

Prepare illustrations (which accompany a saleable product for assembly, maintenance and marketing) including: axonometric drawings exploded views, assembly drawings, diagrammatic layouts, overlays with transparencies, and the use of appliques. Prerequisite: 148-101.

**ARCHITECTURAL DESIGN**

148-231

3 Cr.

Analysis of building sites and family needs; preliminary sketches and instrument drawings; study of: estimating, lighting, heating, and loading; preparation of residential plans including: plot, floor, elevations, sections, perspective, electrical, plumbing and heating. Prerequisite: 148-101.

**MECHANISMS**

148-250

3 Cr.

The study of mechanisms as an introduction to machine design with graphical and analytical analysis of displacement velocity, acceleration, motion, gearing, gear trains, linkages, and cams. Prerequisite: 148-224.

**MACHINE DESIGN ELEMENTS**

148-301

3 Cr.

The study of materials, theories of failure, loading, stresses and strains, shafting, bearings, gears, brakes, clutches, fasteners, cylinders, tubes, chains, belts, sliding-element bearings, seals, packings, gaskets, and shields. Prerequisite: 148-250 and 372-225.

**TOOL AND DIE DESIGN**

148-303

2 Cr.

The study of the design and applications for jigs and fixtures for lathes, and mills. The study of milling cutters, lathe tools, boring bars, and gauges for checking work, die design, and punch presses. Prerequisite: 148-102 and 372-225.

**TOPOGRAPHY**

148-326

2 Cr.

Calculate and convert previously compiled field work data into usable forms for maps, profiles, and land descriptions. Prerequisite: 148-101 and trigonometry.

**ARCHITECTURAL DESIGN II**

148-341

3 Cr.

Programming and analysis, design solution and presentation and preliminary working drawings for light commercial and/or public buildings. Study of building codes (state and national), construction contract documents, structural materials and systems, building materials and systems and mechanical systems. Prerequisite: 148-231.

**MECHANICAL DESIGN PROBLEMS**

148-401

3 Cr.

The study of the scientific methods of problem solving, applied mechanics, materials behavior, and manufacturing methods, correctly proportional stationary and moving parts, and the generation, transformation, or consumption of mechanical energy in the design of a machine. Prerequisite: 148-301.

**PRODUCT DEVELOPMENT**

148-434

2 Cr.

Independent research directed to the solution of a student-selected design problem requiring application of the sciences, industrial graphics, identification of manufacturing methods, marketing and cost analysis, and model or prototype construction when appropriate. Prerequisite: 148-250 or 148-341 or consent of instructor.

**ARCHITECTURAL DESIGN III**

148-451

3 Cr.

Area planning; problems oriented toward design solution of building complexes: exterior space, land use, relationships between buildings and supporting facilities. Survey of contemporary regional and city planning and its historical roots. Prerequisite: 148-341.

**INDUSTRIAL DESIGN WORKSHOP**

148-463

2 Cr.

Product design from the inception of the idea to marketing the product. Procedure and techniques will be illustrated—some opportunity for laboratory work.

**GRAPHIC ANALYSIS AND COMPUTATION**

148-475

2 Cr.

The study of fundamental graphical concepts, abstract graphic principles, formulas, and equations, vector geometry, and graphical concepts as they apply to modern engineering technology. Prerequisite: 148-250.

**COMPUTER ASSISTED DESIGN PROBLEMS**

148-476

2 Cr.

An introduction to the relationship of the computer to drafting and plotted design, design automation, introduction to mechanical design problem analysis for computers, mathematical and simulation models for use in the solution of mechanical design problems. Prerequisite: 148-250.

**INDUSTRIAL TECHNOLOGY (50)****PACKAGING FUNDAMENTALS**

150-215

2 Cr.

**INDUSTRIAL ORGANIZATION**

150-290

2 Cr.

Survey of the basic functions and inter-relationships of the major subdivisions of industrial organizations.

**PRODUCTION MANAGEMENT**

150-300

3 Cr.

Decision making for production management utilizing various analytical tools and techniques. Prerequisite: 150-290. (General Business Administration majors may substitute 309-304 as prerequisite.)

**PACKING MATERIALS**

150-304

3 Cr.

Introduction to the field of packaging. A study of composition, properties, and applications of packaging materials, standards and testing methods. Prerequisite: 150-290.

**PLANT LAYOUT AND MATERIAL HANDLING**

150-310

3 Cr.

Survey and application of the principles and methods used for solving plant layout and materials handling problems. Prerequisite: 150-300.

**METHODS ENGINEERING**

150-320

2 Cr.

Prerequisite: 150-290.

**PACKAGING SYSTEMS**

150-324

3 Cr.

Introduction to the elements of sound packaging. Work on design, construction, and testing of typical packages. Discussions of mechanical packaging methods. Prerequisite: 150-304.

**WORK MEASUREMENT**

150-340

2 Cr.

Prerequisite: 150-290.

**QUALITY CONTROL**

150-400

2 Cr.

General overview of quality control including: establishment of quality standards, inspection principles and organization, control chart theory and application, acceptance sampling, organizing for quality control. Prerequisites: 150-300, 354-130.

**PRODUCTION CONTROL**

150-410

2 Cr.

Introduction to industrial plant operation; production planning and control. Forecasting, inventory control, production requirements, routing, scheduling, dispatching, and follow-up. Prerequisites: 150-300, 354-130.

**MANUFACTURING COST ANALYSIS**

150-413

3 Cr.

Introduction to principles of accounting, and concepts and techniques of cost analysis. Emphasis placed on application of cost information. Prerequisite: 150-300.

**TIME AND MOTION STUDY**

150-420

2 Cr.

Study and application of work measurement systems such as time study, M.T.M., standard data, and work sampling. Analysis of work for methods improvement by use of motion economy, process charting, flow diagraming, operator training, and suggestions systems. Prerequisite: 150-300.

**ENGINEERING ECONOMY**

150-424

3 Cr.

Analysis of the source and application of funds, including cost control, valuation, depreciation, replacement theory, and taxation. Emphasis on the engineering point of view. Prerequisite: 150-300.

**PACKAGING DESIGN AND EVALUATION**

150-425

3 Cr.

Prerequisite: 150-324.

**PRODUCTION PROCESSING**

150-428

3 Cr.

Production processes with special consideration to product design as related to economic production. Emphasis on factors which influence the choice and sequence of process to obtain an end product. Prerequisites: 150-300, 354-130.

**STATISTICAL QUALITY CONTROL**

150-442

3 Cr.

Application of statistics and probability theory in quality control. Emphasis on statistical theory underlying Schewart Control Charts, acceptance sampling plans, and introduction to design of experiment and analysis of variances. Prerequisite: 150-400.

**INTRODUCTION TO OPERATIONS RESEARCH**

150-445

3 Cr.

Business and industrial application of operations research techniques using linear programming, decision models, and Monte Carlo methods. Problem applications in allocation, sequencing, waiting lines, and competitive strategies. Prerequisites: 150-300, 354-130, 355-153 or 355-156.

**INDUSTRIAL SUPERVISION**

150-450

3 Cr.

An overview of the supervisor's role in accomplishing organizational objectives through the management of human resources. Concepts of organizational and individual behavior serve as a foundation for the development of such supervisory skills as communication, motivation, initiating change, discipline, delegation, and handling grievances. Prerequisites: Senior or graduate standing and 150-300 or consent of the instructor.

**INDUSTRIAL MANAGEMENT**

150-460

2 Cr.

Management problems requiring use of prior course work; emphasis on the human element. Use of role playing, conferences, outside speakers, and written reports related to actual and simulated case problems and industrial games. Prerequisites: 150-290 and senior standing.

**METALS (57)****METALS**

157-102

2 Cr.

Introduction and orientation to the metals field. Equal time in machine shop, welding, foundry, and sheet metal. Exploratory experiences are provided in the four areas with fundamental operations and related technical information.

**MACHINE SHOP**

157-113

2 Cr.

Basic experiences on the engine lathe, drill press, milling machine, grinder and shaper. Hand tools and related information appropriate to fundamental operation is given. Prerequisite: 157-102.

**SHEET METAL**

157-210

2 Cr.

Fundamental machine and hand tool operations, soldering, pattern development, and related information. Discussions on materials equipment and supplies. Prerequisite: 157-102.

**MACHINE SHOP**

157-235

2 Cr.

Advanced shop practice; sharpening of lathe tools, twist drills, milling cutters, taper turning, grinding externally and on flat surfaces. Gear cutting on milling machine. Heat treating and layout techniques. Prerequisite: 157-113.

**MACHINE SHOP III**

157-237

2 Cr.

Spiral milling, tool making, and cutter grinding, cylindrical grinding, maintenance. Prerequisite: 157-235.

**SHEET METAL**

157-239

2 Cr.

Advanced pattern development involving parallel line, radial line, and triangulation. Advanced shop practice. Care and maintaining of equipment. Prerequisite: 157-210.

**SHEET METAL**

157-241

2 Cr.

Cabinet work involving direct layout with extensive work on the cornice and pressbrake. Spot welding. Discussion on selection and purchasing of supplies. Prerequisite: 157-210.

**FOUNDRY**

157-243

2 Cr.

Instructional units on foundry processes; sand analysis; core making; gating and risering; casting defect analysis; furnaces; melting and fluxing; pouring of aluminum. Discussion units on the casting of other non-ferrous and ferrous metals. Prerequisite: 157-102.

**HEATING AND AIR-CONDITIONING**

157-330

3 Cr.

Principles of heating, heat energy, heating system, calculation of heating loads, heating drawings, burners, and control systems.

**METALLURGY**

157-418

3 Cr.

Properties of crystalline solids, production of iron and steel, the carbon-iron equilibrium diagram, principles of heat treatment, properties of ferrous alloys. Production, properties, and theory of the most important non-ferrous metals and alloys. Prerequisite: 311-115.

**PLASTICS MOLD MAKING**

157-423

2 Cr.

The student is required to design a metal mold for a plastic item and progress through the construction stages to the point where the mold will produce finished work pieces. A problem solving course in a specialized technical area. Prerequisite: 157-102.

**WELDING I**

157-455

2 Cr.

Fundamentals of electric arc and oxy-acetylene welding processes in the flat position; manufacture and handling of gases; selection and types of equipment; routine maintenance; types of electrodes, coatings, applications. Prerequisite: 157-102.

**WELDING II**

157-457

2 Cr.

Advanced work in arc and oxy-acetylene welding techniques; vertical, horizontal, overhead positions; destructive and non-destructive testing; MIC and TIC welding processes; oxy-acetylene machine and air carbon arc cutting. Prerequisite: 157-455.

**TOOL AND DIE MAKING**

157-461

2 Cr.

Operations and technical information units for selected examples of single station cutting dies; drawing, expanding, non-cutting, assembling, progressive, and finishing dies. Layout, fabrication methods and operations involved are planned by the student. Prerequisite: 157-237.

**MAINTENANCE OF METAL WORKING EQUIPMENT**

157-462

2 Cr.

Repair and preventive maintenance of machine tool equipment. Emphasis on use of universal tool and cutter grinder. Alignment, fitting, and adjustment of precision machine tools. Prerequisite: 157-235.

## NUMERICAL CONTROL IN MANUFACTURING

157-464

3 Cr.

An investigation of numerical control, of machine tools, justification of numerical control, types of control units and systems, feedback systems, manuscript writing and manual programming, tape punching and machine set up, fixture design and tool setting. A working knowledge of the basic machining processes is recommended. Prerequisite: 157-102.

## POWER TECHNOLOGY (76)

## POWER MECHANICS

176-202

2 Cr.

Power: sources, storage, transmission, instrumentation, control methods and utilization.

## INTRODUCTION TO FLUID POWER

176-223

2 Cr.

Fundamentals of fluid power: basic fluid mechanics, pneumatics, hydraulics, control systems, common industrial circuits are discussed and tested.

## APPLIED FLUID MECHANICS

176-230

3 Cr.

Analysis of fluid flow laws and principles. Application to power components and circuits are stressed with special emphasis on fluid statics, fluid-flow concepts, viscous effects; and compressible flow. Prerequisite: 355-113 or 355-151.

## ELECTRICAL CIRCUITS AND ACCESSORIES

176-232

2 Cr.

Automotive starting, generating, ignition, and accessory circuits. Test and repair techniques with emphasis on batteries, cranking, charging and accessory units.

## INTRODUCTION TO INTERNAL COMBUSTION

176-238

2 Cr.

Study of the theory and principles of operation of spark ignition and compression ignition engines.

## GENERAL MOTOR MECHANICS

176-242

2 Cr.

Consumer knowledge on automobile chassis, internal combustion engine components, fuels, ignition, suspension, and drive systems including service and adjustment techniques.

## AUTO BODY REPAIR

176-245

2 Cr.

Automotive body and frame construction, damage analysis, common repair tools. Body panel repair and alignment practices, metal forming and finishing.



**POWER MECHANICS — SMALL ENGINE SERVICE**

176-254

2 Cr.

Mechanical principles and functions of small power units. Operation, maintenance, tune-up and overhaul procedures of small two- and four-cycle engines.

**INDUSTRIAL HYDRAULICS**

176-307

2 Cr.

Theory, operation and construction of hydraulic systems and circuits with emphasis on the components: pumps, reservoirs, lines, control valves, and actuators. Prerequisites: 176-223 and 176-230.

**FLUID POWER INSTRUMENTATION AND CONTROL**

176-320

2 Cr.

A study of measurement and control devices as they relate to circuit and systems control with special concern with flow pressure, speed and torque. Mechanical, electrical, pneumatic and fluidic control systems are presented. Prerequisites: 176-223 and 176-230.

**INDUSTRIAL PNEUMATICS**

176-328

2 Cr.

Theory, operation, and construction of components common to pneumatics and pneumatic-hydraulic systems with application to basic industrial circuits. Components considered: compressors, plumbing, control valves, and actuators. Prerequisites: 176-223 and 176-230.

**CHASSIS AND RIDE CONTROL**

176-334

2 Cr.

Automotive suspension systems, ride control and brakes. Laboratory work on wheel alignment, balancing, steering systems, and brake rebuilding. Prerequisite: Junior standing.

**FUELS AND CARBURETION**

176-342

2 Cr.

Internal combustion engine fuels, fuel systems, and carburetion principles including exhaust emission control devices. Theory and application experience. Prerequisite: 176-232.

**AUTOMOTIVE MACHINING**

176-347

2 Cr.

Machining techniques as they apply to various systems of the automobile. Special emphasis on engine and brake systems reconditioning. Theory and application relating to engine blocks, valve trains, and brake systems components. Prerequisite: 176-238 or 176-242 or 176-254.

**AUTO BODY REFINISHING**

176-356

2 Cr.

Surface cleaning and preparation for spray gun application of body finishing materials including operation of equipment. Prerequisite: 176-245.

**FLUID POWER SYSTEMS DESIGN**

176-426

3 Cr.

Introduction to fluid power systems design through problem solving in areas of load analysis, circuit control, and component selection. Prerequisites: 176-307, 176-320 and 176-328.

**AUTO SHOP MAINTENANCE AND MANAGEMENT**

176-445

3 Cr.

Maintenance and management of equipment and personnel peculiar to the auto shop. Prerequisite: Senior standing.

**TRANSMISSION AND DRIVE TRAINS**

176-456

2 Cr.

Power transmission through gears, clutches and drives common to the automobiles. Fluid couplings, gear sets, differentials, transmissions and drive lines. Prerequisite: 176-334.

**AUTO ENGINE REBUILDING**

176-466

2 Cr.

Service procedures and practices for overhauling four strike cycle gasoline engines including cylinders, pistons, rings, valve systems, camshafts, and crankshafts. Prerequisite: 176-238.

**TUNE UP AND DIAGNOSIS**

176-468

2 Cr.

Practicum in automotive tune-ups and diagnostic service procedures, service operations with all types of modern automotive test equipment. Prerequisite: 176-342.

**TECHNICAL FIELD EXPERIENCE —  
AUTOMATIC TRANSMISSIONS**

176-490

2 Cr.

The operating principles, diagnostic procedures, repair techniques and testing of all makes of automatic transmissions.

**SAFETY (82)****GENERAL SAFETY**

182-423

3 Cr.

Introduction to the philosophy and principles of accident prevention. Supervising school safety programs. Identification of resources and content such as, motor vehicle, home, public, farm, industrial, school, recreational, and civil defense. Prerequisite: Sophomore standing.

**DRIVER EDUCATION**

182-448

3 Cr.

Introduction to history, objectives, and instructional content and methods of traditional driver education programs. Laboratory experience involves instruction of student driver in dual controlled vehicles. Prerequisite: Valid driver's license.

**ADMINISTRATION OF DRIVER EDUCATION**

182-452

3 Cr.

Comprehensive programming of driver education programs. Emphasis on simulation, range, adult programs, driver improvement, handicapped instruction, and psychology of driver. Prerequisite: 182-448.

**DRIVER IMPROVEMENT PROGRAMS**

182-453

2 Cr.

The improvement of drivers through educational methodology, curriculum planning, and research. Special attention given to adult programs, mentally retarded, orthopedically handicapped, as well as the chronic violator and the accident repeater. Prerequisite: 182-452.

**INDUSTRIAL SAFETY**

182-454

3 Cr.

An overview of occupational accident prevention programs. Emphasis on techniques of measurement, cost of accidents, locating and identifying accident sources, psychology of occupational safety and problems of selecting corrective action. Prerequisite: Junior standing.

**TRAFFIC AND HIGHWAY SAFETY**

182-455

3 Cr.

An overview of the traffic and highway safety problems, components, research agencies, national, state and local policies, standards, and recommendations for improved traffic safety. Prerequisite: 182-423 or permission of instructor.

## WOOD TECHNICS (96)

**WOODWORKING**

196-103

2 Cr.

A study of wood, modified wood, wood products, and the wood-working industry. Technical information on physical properties and characteristics of wood; basic techniques and procedures of furniture construction and building construction.

**MACHINE WOODWORKING**

196-131

2 Cr.

Technical information, job planning, fundamental principles of machine woodworking. Mass production in woodworking emphasized. Prerequisite: 196-103.

**PLASTICS I**

196-203

2 Cr.

A study of the materials and processes of the plastics industry. Technical information on the characteristics and properties of thermoplastic and thermosetting materials and processing equipment.

**WOOD TECHNOLOGY**

196-207

3 Cr.

Forest management, structure of wood, properties of wood, defects of wood, modifying wood, bonding wood, testing procedures and trends in wood based industries.

**GENERAL FINISHING**

196-209

2 Cr.

Technical information and application of finishes to various materials. Color theory, spraying, baking, drying, polishing, spot finishing, and refinishing.

**CABINET WORK I**

196-215

2 Cr.

Problem solving, testing of materials, and advanced technical information. Student designs project, develops job plan and evaluation devices, and constructs project. Prerequisite: 196-131.

**BUILDING CONSTRUCTION I**

196-219

2 Cr.

Technical information and problems in building construction. Actual construction of fundamental components. Elementary roof framing. Prerequisite: 196-103.

**PAINTING AND DECORATING**

196-221

2 Cr.

Application of color theory, color mixing, painting, graining, stenciling, marbling, mottling, strippling, texturing, dry wall construction, and interior design.

**PATTERNMAKING I**

196-225

2 Cr.

Application of patternmaking principles, using wood, wax, plaster and plastic materials for foundry. Prerequisite: 196-103.

**DESIGN IN WOOD**

196-311

3 Cr.

Study and application of basic principles of design utilizing wood and allied materials. Research, testing and completion of individual and group projects. Prerequisite: 196-103.

**PRODUCTION SYSTEMS**

196-314

3 Cr.

The organization and operation of an industrial company. The selection, designing, production planning, production, marketing and distribution of a product.

**GENERAL WOODWORKING**

196-316

2 Cr.

General unit shop organization, upholstery and wood turning. Experience in organization and presentation of content in woodworking as it relates to the total industrial arts program. Prerequisite: 196-103.

**BUILDING CONSTRUCTION II**

196-319

2 Cr.

Technical information and problems in building construction with emphasis on exterior materials and components and advanced roof framing. Prerequisite: 196-219.

**BUILDING CONSTRUCTION III**

196-421

2 Cr.

Technical information and problems in interior finishing, cabinet and stair construction. Prerequisite: 196-319.

**PLASTICS II**

196-440

2 Cr.

Technical information relating to plastic materials and to tooling design for plastics. Product development with emphasis on experimental design in tooling and quality control. Prerequisite: 196-203.

**TOOL AND MACHINE CONDITIONING**

196-464

2 Cr.

Technical information on woodworking equipment, cutting theory, safety, and shop organization. Maintenance of woodworking machines, saw fitting, and general hand tool fitting. Prerequisite: 196-103.

**INDUSTRIAL TEACHER EDUCATION (449)****INTRODUCTION TO INDUSTRIAL EDUCATION**

449-160 Quarter

1 Cr.

An introduction to current programs, facilities, and opportunities in teaching American industry, industrial arts, vocational, technical and adult education. Different kinds of programs will be examined as to their purpose in the field of education. Students will develop personal plans and goals in relation to the future direction of these programs. Prerequisite: Second semester freshman standing.

**ACTIVITY ANALYSIS**

449-234 Quarter

2 Cr.

Study of analysis of activities for instructional purposes and for personnel work. Jobs, operations, information topics, blocking, custom occupations, service occupations, checking level, progression factors defined.

**TRADE AND JOB ANALYSIS**

449-235

2 Cr.

Study of analysis of trades for instructional purposes. Involves listing of operations and related information topics to be considered in course development.

**INTRODUCTION TO TEACHING**

449-304 Quarter

3 Cr.

A methods course correlated with guided experiences involving directed observations and gradual assumption of teaching responsibilities in local schools. Includes the development of lesson plans, teaching aids, and class management techniques. Prerequisites: 421-222, 421-303, overall grade point average — 2.25.

## METHODS OF TEACHING INDUSTRIAL EDUCATION

449-305 Quarter 2 Cr.

Study of teaching methods in use in youth and adult shop classes. Instruction planning; methods of organization and management; instruction aids; professional ethics. Prerequisite: 421-303.

## CURRICULUM DEVELOPMENT

449-404 Quarter 5 Cr.

Development of an orderly procedure for the identification of concepts; generalizations and instructional units to be used in teaching. Course outlines; analysis of content; lesson planning; evaluation; management. Prerequisites: 449-304 or 449-305, overall grade point average — 2.25.

## STUDENT TEACHING

449-408 Quarter 8 Cr.

Directed teaching and community experiences in selected off-campus schools. Prerequisites: 449-304, 449-404 and 421-401.

## INDUSTRIAL ARTS FOR ELEMENTARY TEACHERS

449-425 2 Cr.

Development, philosophy, objectives, and course organization for industrial arts for the elementary schools. Suitable laboratory work in woods, metals, plastics, and drawing.

## SHOP PLANNING AND EQUIPMENT SELECTION

449-433 Quarter 2 Cr.

Principles of school shop planning including equipment selection and placement, plus selection, care, arrangement of supplies. Prerequisite: 449-404 or equivalent.

## SCHOOL SHOP ORGANIZATION AND MANAGEMENT

449-437 Quarter 2 Cr.

Experience in administration, project development and teaching problems associated with industrial education. Prerequisites: 449-304, 305.

## PROBLEMS IN TEACHING TRADE, TECHNICAL AND INDUSTRIAL SUBJECTS

449-443 2 Cr.

Individual work following approved practice in the development of instructional material for vocational-technical and adult teaching. (Extension) Prerequisites: 449-305 or equivalent.

## INTERNSHIP TEACHING

449-488 8 Cr.

An alternate method of obtaining student teaching experience. Teacher interns receive a license to teach and salaried appointments in cooperating school systems for one full semester. Prerequisites: 449-304 or 449-305 and 449-404.



## THE SCHOOL OF HOME ECONOMICS (2)

J. ANTHONY SAMENFINK, ED.D., DEAN

Departments: Child Development and Family Life (12)  
Clothing, Textiles and Design (14)  
Food Science and Nutrition (29)  
Home Management, Economics and Equipment (44)  
Hotel and Restaurant Management (45)  
Home Economics Education (442)

### SPECIAL COURSES

#### STANDARDS OF LIVING

200-405

2 Cr.

Study of the scales and standards of living of American and foreign countries. Emphasis on the standard of living of families on moderate incomes.



## HOME ECONOMICS IN WISCONSIN SCHOOLS

200-425

2-3 Cr.

This course is designed to guide cadet teachers and instructors or supervisors in the field in exploring the considerations involved in the adaptation and detailed use of the state Guide for the Improvement of Instruction in Home Economics. The opportunity of applying the suggested helps to various levels of education for personal and home living in specific situations will provide each student not only with techniques but with actual teaching materials for immediate use. Prerequisite: Graduate standing or advanced undergraduate standing.

## PROBLEMS IN HOME ECONOMICS

200-481

2 Cr.

This course will deal with special problems in depth as initiated by an instructor or according to student needs and interests. This course should serve as a culminating educative experience for students in the various areas of home economics. Prerequisite: Consent of instructor.

## NATIONAL STUDY TOUR IN HOME ECONOMICS

200-498

1-3 Cr.

Group membership limited to 20 and majors of the particular area to be studied have priority. Study visit to a major United States city relating student's learning in his major area to business and industry. Prerequisites: Junior, senior, graduate and consent of the instructor.

## CHILD DEVELOPMENT &amp; FAMILY LIFE (12)

## CHILD DEVELOPMENT I

212-124

3 Cr.

A developmental study of the child from conception through adolescence, including physical, intellectual, social and emotional growth. Observation required.

## CHILD DEVELOPMENT LABORATORY

212-235

1 Cr.

Observations in the Child Study Center culminating in a personality study of a child. Prerequisite: 212-124.

## FAMILY HEALTH

212-248

2 Cr.

Focuses on the health needs and problems of the developing individual. Emphasis on promotion of optimum health of individuals and families.

## FAMILY RELATIONSHIPS I

212-249

3 Cr.

Dynamics of social-psychological forces affecting family interaction. Explorations of courtship, husband-wife, parent-child relationships. Prerequisites: 479-123, 387-110.

## CHILD GUIDANCE

212-264

2 Cr.

Study of principles relevant to guidance of children. Evaluation of literature and application of studies to children. Observation experiences in the study of young children.

## CHILD GUIDANCE LABORATORY

212-265

1 Cr.

Supervised participation in the Child Study Center with emphasis on guidance and understanding of children. Prerequisite: 212-264.

## PARENT EDUCATION

212-307

2 Cr.

A study of parent groups, the training of parent-group leaders, a survey of the literature in this field. Practicum with parent groups. Prerequisite: 212-264.

## CHILD DEVELOPMENT II

212-324

3 Cr.

An empirical study of the physiological, intellectual, social and emotional development of children. Prerequisites: 212-124, 212-264.

## EDUCATIONAL ACTIVITIES OF THE YOUNG CHILD

212-342

2 Cr.

A study of the literature, music, and play materials suitable for the young child. The student is given some opportunity for actual work with children. Prerequisite: 212-124 or 212-264.

## FAMILY RELATIONSHIPS II

212-349

3 Cr.

A study of the family with emphasis on environmental factors significant in marriage and family relationships. Prerequisite: 212-249.

## PARENT COUNSELING

212-407

2 Cr.

Various approaches and techniques of working with parents. Observation and experience with problems parents face in child-rearing. Prerequisites: 212-124, 212-264.

## ADVANCED CHILD GUIDANCE

212-424

3 Cr.

A study of principles and a review of literature pertaining to the guidance of children. Prerequisites: 212-124, 212-264.

## SPECIAL TOPICS IN THE STUDY OF FAMILY LIFE

212-426

3 Cr.

A review of programs and literature related to family life with opportunity for individual study of problems of personal and professional interest. Prerequisite: 212-349.

## SEMINAR ON SELF-GROWTH

212-435

2 Cr.

A seminar based on a study of theories of the self. Exploration of selected aspects of self-development and actualization. Prerequisites: 212-324 and/or 212-349.

## SEMINAR IN CHILD DEVELOPMENT

212-437

2 Cr.

Exploration in depth of special problems and aspects in the child development field with preference given to students' interests. Prerequisite: Consent of instructor.

SEMINAR ON THE CULTURALLY DISADVANTAGED  
CHILD AND FAMILY

212-485

3 Cr.

Study of problem, needs, related research and current trends to assist the disadvantaged child and family toward fuller actualization of potentialities for self and society. Prerequisite: 212-324 or 212-349.

## AMERICAN STUDY TOUR IN CHILD DEVELOPMENT

212-498

2 Cr.

Study tour of child development centers. Discussions, and lectures by leading people in the field of child development. Prerequisite: Consent of instructor.

## EARLY CHILDHOOD EDUCATION (477)

INTRODUCTION TO TEACHING EARLY  
CHILDHOOD EDUCATION

477-204

3 Cr.

An introduction to the early childhood education movement, management, classroom arrangement, guidance principles, sensory stimulation, enhancement of self, and creative expression with young children. Prerequisites: 212-264, 212-124.

CURRICULUM I: LANGUAGE ARTS AND SOCIAL STUDIES  
IN EARLY CHILDHOOD EDUCATION

477-233

2 Cr.

Development of methods and techniques necessary for teaching language, arts and social studies to young children with particular emphasis placed on effective social and communications, skills and experiences. Prerequisite: 477-204.

CURRICULUM II: SCIENCE AND MATHEMATICS IN  
EARLY CHILDHOOD EDUCATION

477-333

2 Cr.

Directed study for the application of skills in order to teach mathematics and science concepts appropriate for early childhood education, including organization and presentation of teaching-learning experiences for children in early learning situations. Prerequisite: 477-204.

## STUDENT TEACHING IN NURSERY SCHOOL

477-408A

4 Cr.

Direct teaching and community experience in selected nursery schools. Prerequisite: 477-233.

## STUDENT TEACHING IN KINDERGARTEN

477-408B

4 Cr.

Direct teaching and community experience in selected off-campus kindergartens. Prerequisite: 477-233.

CURRICULUM III: TEACHING READING IN  
EARLY CHILDHOOD EDUCATION

477-433

2 Cr.

A study and evaluation of current philosophies, methodology and materials in the teaching of reading with special emphasis on readiness activities and beginning reading in early childhood. Prerequisite: 477-233.

ADMINISTRATION OF EARLY CHILDHOOD  
EDUCATION PROGRAMS

477-465

2 Cr.

A study of organization, methods, program design, staffing, licensing, certification, equipment and facilities for operating Early Childhood Education Programs. Field trips required. Prerequisite: 477-408B.

## INTERN TEACHING

477-488

8 Cr.

An alternative method of obtaining student teaching experience. Teacher interns receive license to teach in salaried appointments in cooperating school systems for one full semester. Prerequisite: 477-233.

## CLOTHING, TEXTILES AND DESIGN (14)

## CLOTHING IN A CONTEMPORARY WORLD

214-108

3 Cr.

Exploration of basic concepts of clothing in evaluating the role of clothing in modern society; various facets within the clothing, textiles and design fields and their contributions to individual growth and professional needs.

## CLOTHING I

214-112

4 Cr.

Theoretical study of garment construction and alteration as it is related to the fashion industry.

## CLOTHING I—LABORATORY

214-113

2 Cr.

Designed to accompany 214-112 Clothing I. Application of principles of garment construction and fit.

**CLOTHING CONSTRUCTION**

214-118 3 Cr.

Application of basic principles of clothing construction and pattern alteration in the construction of garments. Pretest to determine need.

**TEXTILES I**

214-215 3 Cr.

Fibers, yarns, fabric construction, finishes, and design as applied to the selection of clothing and household fabrics.

**ADVANCED CLOTHING CONSTRUCTION**

214-218 3 Cr.

Emphasis is placed on advanced construction techniques, fitting, and working with challenging fabrics. Two designer type garments and a slacks project are constructed. Prerequisites: 214-118 or pretest, 214-112, 113.

**FIELD EXPERIENCE**

214-298 2 Cr.

Study and work related to student's major in a position approved by department chairman and field experience director. Written report, oral seminar, presentation, plus evaluation by supervisor. May be repeated.

**FLAT PATTERN**

214-313 3 Cr.

A study and application of the techniques of pattern designing through drafting methods. An original garment is designed and constructed. Prerequisites: 214-118, 214-218.

**ECONOMICS OF FAMILY CLOTHING**

214-319 3 Cr.

An introduction to patterns of clothing consumption, production and distribution as they relate to the family.

**FASHION MERCHANDISING I**

214-325 3 Cr.

Merchandising with application of fundamentals for selling, buying and marketing procedures.

**PRACTICUM IN TEXTILE DESIGN**

214-331 3 Cr.

Exploring use of textile design techniques, primarily stitchery and hooking as a means of artistic expression. Students develop individual projects using stitchery and hooking techniques. Emphasis on design, creativity. Prerequisite: 304-106.

**PRACTICUM IN TEXTILE PRINTING**

214-337 3 Cr.

Exploring use of textile design techniques, primarily silk screen, block printing, and batik. Students develop individual projects using above techniques; emphasis on design and creativity. Prerequisite: 304-106.

## TEXTILES II

214-407

2 Cr.

Problems involving fiber identification, fabric, performance, and fabric care. Chemical and microscopic testing procedures. Research methods for gathering and interpreting data. Individual problems. Prerequisite: 214-215.

## DECORATIVE FABRICS

214-411

2 Cr.

Study of historic and contemporary fabrics with analysis of designs and techniques of decorating fabrics. The contribution of decorative fabrics to the enrichment of human experience.

## DRAPING

214-412

3 Cr.

Application of principles of costume design in the construction of garments by means of draping. Emphasis on creativity. Prerequisite: 214-218.

## TEXTILE ECONOMICS

214-429

3 Cr.

Textile market conditions. Patterns of textile consumption in business and industry and their indirect relationship to the individual and family. Prerequisites: 214-273, 320-210, 211.

## FASHION MERCHANDISING II

214-435

3 Cr.

Principles for successful merchandising of fashion goods, buying and marketing procedures. Analysis of customer demands. Individual problems required. Prerequisite: 214-325.

## APPAREL DESIGN

214-439

2-4 Cr.

Development of designs and construction of apparel using advanced techniques. Prerequisite: 214-313 or 214-412.

## TAILORING

214-450

3 Cr.

Application of tailoring techniques in making suits and coats. Prerequisite: 214-218.

## EUROPEAN STUDY TOUR

214-465

3-6 Cr.

Tour of European centers of art, clothing, and textiles. Study of the cultural patterns they reflect. Six week program includes lectures by consultants and seminars on the various phases of the fashion and fabric industries. (Summer)

## HISTORY OF COSTUME: ANCIENT TO EUROPEAN 1900

214-471

3 Cr.

Development of costume throughout the ages. Fashion as it reflects the cultures and the past. Influence of the past on present-day costume.

## CLOTHING AND TEXTILE INDUSTRY

214-473

3 Cr.

The clothing and textile industry, its organization, promotion methods, and the interrelationship of the major factors of industry and its markets. Prerequisite: 214-215.

## HISTORY OF AMERICAN COSTUME

214-475

2 Cr.

Costume as it developed in the United States from Colonial Period to present day. Aspects of costume reflecting the cultural development. Influences of foreign countries upon costume and culture.

## RECENT DEVELOPMENTS IN CLOTHING AND TEXTILES

214-479

2 Cr.

Discussion, demonstration, and laboratory work. Individual experimental problems to determine choice, use, and care of modern fibers and fabrics. Newer construction techniques adapted for these fabrics. Prerequisite: 214-218.

## SOCIAL PSYCHOLOGICAL ASPECTS OF CLOTHING

214-480

3 Cr.

The social significance of clothing to an individual and the influences it has upon his behavior. Prerequisites: 479-123, 387-309.

## PROBLEMS IN HOME ECONOMICS

214-481

2 Cr.

Investigations in Clothing and Textiles.

## CLOTHING AND TEXTILES PROBLEMS

214-482

2 Cr.

Individual investigation in one specific field of interest within clothing and textiles. Opportunity to correlate clothing and textiles with related fields.

## NATIONAL STUDY TOUR TO FASHION INDUSTRY

214-498

1 Cr.

Membership limited to 20; Fashion Merchandising and Clothing and Textiles majors will have priority. Five day visit in New York City or (alternate city). Program will involve study tours, discussions, and lectures by leading people in American fashion market. Prerequisites: Junior, senior, graduate, and consent of instructor.

## FOOD SCIENCE AND NUTRITION (29)

## FOOD SCIENCE I

229-114

4 Cr.

Scientific approach to food preparation.

## NUTRITION

229-212

3 Cr.

Principles of human nutrition and application in the selection of food for members of the family group.



## FOOD SCIENCE II

229-230

3 Cr.

Basic scientific principles and methods involved in appraisal, selection, preparation, and preservation of food. Prerequisite: 229-114.

## APPLIED FOOD SERVICE MANAGEMENT

229-300

3 Cr.

Concepts for purchasing and preparation of food in quantity. Menu planning, recipe development, management, and cost control. Prerequisite or parallel: 229-308. Not open to persons with credit in 229-328.

## MEAL MANAGEMENT

229-308

3 Cr.

Planning, preparation, and service of meals. Management of money and time, efficient use of equipment, consideration of nutrition needs, food habits, and social customs of family groups. Prerequisite: 229-212.

## NUTRITION AND DIETETICS

229-310

3 Cr.

Principles of human nutrition applied to individual, family, community, and world problems. Prerequisites: 229-212, 308-362, 311-322.

## FOOD SERVICE ADMINISTRATION

229-328

3 Cr.

Organization and administration of food service systems; personnel selection and training, cost control, sanitation, and problems of management. Prerequisite or parallel: 229-308.

## DIET THERAPY

229-418

3 Cr.

Principles and methods for the use of diet as a therapeutic measure in certain pathological conditions. Prerequisite: 229-310.

## READINGS IN FOOD SCIENCE AND NUTRITION

229-431

2 Cr.

Critical reading, evaluating, and reporting from pertinent current journals and other publications. Prerequisites: 229-212, 311-115, or 311-135, 308-214.

## MATERNAL AND CHILD NUTRITION

229-433

3 Cr.

Application of basic knowledge to maternal, infant, child, and adolescent nutrition. Prerequisites: 229-212, 212-124, 308-214.

## EXPERIMENTAL FOODS

229-438

3 Cr.

Experimentation with selected food materials, techniques, and equipment. Opportunity for directed study in an individually chosen area. Prerequisites: 229-230, 311-208.

## ADVANCED FOOD STUDIES

229-442

2 Cr.

Based on the student's special interest in the field of food selection, preparation, and appraisal. Prerequisites: 229-230, 229-308.

## SCHOOL FOOD SERVICE

229-443

2-3 Cr.

Management of type A school lunch program. Recent developments in food selection and preparation, equipment, cost control, sanitation, and personnel management. Prerequisite: 229-308. Not open to persons with credit in 229-328.

## QUANTITY FOOD PRODUCTION AND SERVICE

229-452

3 Cr.

Concepts for quantity food preparation and service. Laboratory experience in preparation, service and food costing. Prerequisite: 229-328.

## INSTITUTION FOOD PURCHASING

229-454

2 Cr.

Methods of purchasing food in large quantities. Determination of standards, specific needs, and industrial offerings; formulation of specifications, buying procedures, and controls. Prerequisite: 229-328.

## FOOD SERVICE EQUIPMENT

229-455

2 Cr.

Factors affecting planning, selection, and layout of food service equipment and facilities. Prerequisite: 229-328.

FOOD SERVICE MANAGEMENT FOR CHILD  
DEVELOPMENT CENTERS

229-458

2 Cr.

Administration of food service for preschool children in centers, with consideration of individual needs and emotional reactions to food, meal planning, purchasing, receiving and storage, principles of food preparation and service and equipment. Prerequisite: 229-114.

## SOCIAL AND CULTURAL ASPECTS OF FOOD

229-461

2 Cr.

Social, economic, and cultural influence on man's food patterns. Prerequisite: Senior standing.

## EUROPEAN FOODS STUDY TOUR

229-465

3-6 Cr.

Six weeks tour to study cultures, food patterns, and different phases of food industries in Europe.

## ADVANCED FOOD PRODUCTION MANAGEMENT

229-475

3 Cr.

Advanced food production planning and controls with management experience in campus food services. Prerequisite: 229-452.

## HOME MANAGEMENT, ECONOMICS AND EQUIPMENT (44)

### HOME MANAGEMENT THEORY

244-304

3 Cr.

Study of principles relating to management within the home and the use of resources in achieving family goals. Emphasis on decision-making process. Prerequisite: Junior standing.

### CONSUMER ECONOMICS

244-317

3 Cr.

Motives in consumption; family income and expenditures, selection of commodities and services; buying and selling practices. Evaluation of consumer aids and investigation of local situations. Prerequisite: 320-201.

### HOME EQUIPMENT AND HOUSEHOLD PHYSICS

244-333

3 Cr.

Application of general laws and principles of physics to household appliances. Selection, operation, use, and care of home equipment.

### DEMONSTRATION TECHNIQUES

244-400

2 Cr.

Application of demonstration principles in planning and presenting all types of Home Economics demonstrations. Prerequisite: 229-308.

### HOME MANAGEMENT LABORATORY, NON-RESIDENCY

244-404

1 Cr.

Management of resources for attainment of personal and family goals. Principles of management applied through directed experiences in student's living situation. Prerequisite: 229-308.

### HOME MANAGEMENT LABORATORY, RESIDENCE

244-404

1 Cr.

Management of family resources for attainment of successful family life; social aspects and adjustments of group and family living. Residence in home management house with homemaking and managerial experiences. Prerequisite: 229-308.

### FAMILY FINANCE

244-428

2 Cr.

Management in relation to personal and family finance. Experiences in budgeting income and expenses and planning for adequate insurance, home financing, and savings and investments. (Semester 1, 2, Summer) Prerequisite: 320-201.

**FAMILY HOUSING**

244-444

3 Cr.

Appreciation and understanding of differences in socio-economic factors of the environment which influence effective utilization of family housing resources. Emphasis will be on adjustment and flexibility of safety, comfort, convenience, physical and financial maintenance based on the family cycle. Field trips and individual projects. Prerequisites: 304-106, 320-201, 387-110, senior standing.

**PROBLEMS IN HOME ECONOMICS**

244-481

2 Cr.

**AMERICAN STUDY TOUR IN BUSINESS AND INDUSTRY**

244-498

1 Cr.

Five day visit in New York City or (alternate city). Membership limited to 20. Home Economics in business majors have first priority; general Home Economics majors have second priority. Program will involve study tours, discussions and lectures by leading people in industry, business, and communications related to these fields.

## **HOTEL AND RESTAURANT MANAGEMENT (45)**

**INTRODUCTION TO HOTEL AND RESTAURANT MANAGEMENT**

245-101

3 Cr.

Development of historical background, the economics of tourism, vocational opportunities, basic system and organizational analysis, research, trends in industry and problems of current importance.

**BASIC FOODS**

245-110

4 Cr.

To develop an understanding of basic food preparation principles, procedures, and techniques in order to prepare palatable, attractive meals.

**MAINTENANCE AND SANITATION**

245-205

3 Cr.

The responsibilities of the housekeeping department and the maintenance department in providing sanitary, attractive facilities and prolonging the life of the building and equipment. Emphasis is placed in proper food handling in the kitchen. Prerequisite: 311-115 or equivalent.

**COMMERCIAL COOKING**

245-210

3 Cr.

Concepts of menu planning, analysis of production problems, costs of food and labor. Laboratory experience in preparation and service. Prerequisite: 245-110.

**FIELD EXPERIENCE**

245-298

2 Cr.

Off-campus study related to major while employed a minimum of eight weeks or 320 hours in a field position approved by advisor. Written report, oral seminar presentation, plus evaluation by immediate field supervisor. May be repeated for credit, but must be in a different organization or progressively more advanced in same organization. Maximum total of 4 credits. Prerequisite: 245-101.

**APPLIED INSTITUTION MANAGEMENT**

245-300

3 Cr.

Concepts for purchasing and preparation of food in quantity. Menu planning, recipe development, management and cost control. Prerequisites: 245-101 or 229-308, 229-114 or 245-110.

**HOTEL AND RESTAURANT ACCOUNTING**

245-301

3 Cr.

A study in the design and interpretation of specialized accounting and financial control systems in management decision making. Emphasis will include uniform system of accounts, departmentalized costing procedures, and analysis and interpretation. Prerequisites: 309-206, 207.

**HOTEL AND RESTAURANT MANAGEMENT**

245-305

3 Cr.

Management principles pertinent to hotels and restaurants, supervisory development and training, labor relations, ownership and financial structure and managerial interpretation and evaluation of current systems and procedures. Prerequisite: 245-101.

**QUANTITY FOOD PRODUCTION**

245-310

3 Cr.

Menu and formula analysis, analysis of production problems, costs of food and labor, and testing new food products. Prerequisite: 245-110.

**FOOD AND BEVERAGE CONTROL**

245-315

3 Cr.

A course in creating and evaluating management control systems in the operation of food service establishments. Emphasis will include analysis methods and correctional procedures. Prerequisites: 309-206, 207.

**MERCHANDISING AND SALES**

245-316

3 Cr.

Effects of location, internal and external merchandising programs, definitions of markets, group and convention business, public relations and evaluation of programs. Prerequisites: 245-101 and 245-305.

**FOOD SERVICE EQUIPMENT**

245-318

2 Cr.

A comprehensive study of the factors affecting design, selection, layout, and uses of food service equipment and facilities. A quantitative approach in optimum utilization of physical and human resources. Students plan actual layouts of different types of food facilities. Prerequisite: 148-101.

## CATERING I

245-320

3 Cr.

Service of special functions, banquets, receptions, etc. Emphasis is placed on planning, preparation and service. Menu planning, cost controls, classical buffet set-ups and personnel organization are covered. Prerequisites: 245-110, 245-210.

## FOOD SERVICE ADMINISTRATION

245-328

3 Cr.

Organization and administration of food service systems, personnel selection and training, cost control, sanitation and problems of management. Prerequisite: 229-308.

## CATERING II

245-420

3 Cr.

A continuation of Catering I. Prerequisite: 245-320.

## HAUTE CUISINE

245-437

3 Cr.

To acquire a knowledge and understanding of classical food and service, which has gained historical and international acclaim. Prerequisite: 245-420 or equivalent.

## QUANTITY FOOD PRODUCTION AND SERVICE

245-452

3 Cr.

Menu and formula analysis of production problems, costs of food and labor, and testing new food products. Prerequisite: 245-328.

## INSTITUTIONAL FOOD PURCHASING

245-454

2 Cr.

Methods of purchasing food in large quantities. Determination of standards, specific needs and industrial offerings; formulation of specifications, buying procedures, and controls. Prerequisite: 245-110.

## SEMINAR IN HOTEL AND RESTAURANT MANAGEMENT

245-465

3 Cr.

An advanced course in management. The student will select a topic of importance to this industry, to research and report on in detail. Limited to senior students. Prerequisites: 245-101, 245-305.

## ADVANCED FOOD PRODUCTION MANAGEMENT

245-475

3 Cr.

Advanced food production planning and controls with management experience in campus food services. Prerequisite: 245-210.

## HOME ECONOMICS EDUCATION (442)

### INTRODUCTION TO TEACHING

442-304

3 Cr.

A methods course correlated with guided experiences involving directed observation and gradual assumption of teaching responsibilities in local schools. Includes the development of lesson plans and teaching aids. Prerequisites: 421-222, 479-303, overall grade point of 2.25.

### METHODS OF TEACHING HOME ECONOMICS

442-320

2 Cr.

Principles of teaching applied to the selection, organization, and development of home economics subject matter. For dietitians and other groups with specialized needs. Prerequisite or parallel: 479-303. Not open to teacher education majors, etc.

### CURRICULUM DEVELOPMENT

442-404

5 Cr.

Development of an orderly procedure for the identification of concepts, generalizations and instructional units to be used in teaching. Courses outlines: analysis of content; lesson planning; evaluation; management. Prerequisites: 442-304, overall grade point average — 2.25.

### STUDENT TEACHING

442-408

8 Cr.

Directed teaching and community experiences in selected off-campus schools. Prerequisites: 442-404, 442-304 and 421-401.

### OCCUPATIONAL EDUCATION IN CLOTHING SERVICES

442-420

2 Cr.

Development of the concept of occupational education in secondary, post secondary and adult programs in home economics; specifically related to a cluster of courses in clothing services. Prerequisites: Senior or graduate standing in Home Economics or Home Economics Education.

### CONCEPTS OF EXTENSION EDUCATION

442-430

2 Cr.

Study of the concepts and processes involved in conducting educational programs for adult and youth; includes philosophy, objectives and organization of Extension Education, leadership development, program development, teaching methods and evaluation. Prerequisites: Senior or graduate standing in Home Economics or Home Economics Education.

### INTERNSHIP TEACHING

442-488

8 Cr.

An alternate method of obtaining student teaching experience. Teacher interns receive a license to teach and salaried appointments in cooperating school systems for one full semester. Prerequisites: 442-304, 442-404.





## SCHOOL OF LIBERAL STUDIES (3)

DWIGHT L. AGNEW, PH.D., DEAN

Anthropology (03)\*

Art (04)

Biology (08)

Business Administration (09)

Chemistry (11)

Economics (20)\*

English and Journalism (26)

French (28)\*

Geography (36)\*

History (38)\*

Applied Mathematics (54)\*

Mathematics (55)

Music (60)

Philosophy (65)

Physical Education and Athletics (66)

Men (67) Women (68)

Physics (72)

Political Science (75)\*

Sociology and Social Work (87)\*

Speech (91)

\*Since these may some day be separate departments, they are given separate numbers.

## TWO YEAR PROGRAM

Before registering in the Liberal Studies program, a student who has already selected a college from which he expects to be graduated should, if possible, obtain and study catalogs from the institution. Correspondence with officials of the college will also help to determine the most relevant courses and assure him of acceptance of the credits.

Certain courses are basic to almost every college curriculum:

Two semesters of English Composition (placement according to proficiency)

Mathematics (placement according to proficiency)

Two semesters of laboratory science (biology, chemistry, or physics)

Two semesters of history (either United States History or History of Western Civilization)

Speech

Foreign Language

Physical Education

Other subjects frequently required for college graduation or frequently recommended as electives include: Literature (English, American or both), sociology, economics, American government, additional laboratory science, additional mathematics, psychology, philosophy, additional speech, art, and music. In addition, there are many technical courses in both Home Economics and Industrial Education which serve as general education or would apply in specific professional curricula.

Pre-professional requirements differ widely from college to college. Usually a year or more of pre-professional work can be transferred to other colleges or universities in:

Agriculture	Medicine
Architecture	Nursing
Commerce	Pharmacy
Dentistry	Physical Therapy
Education	Medical Technology
Engineering	Social Work
Journalism	Veterinary Medicine
Law	

Pre-professional courses should be carefully worked out with the help of the advisor and catalogs of professional schools.

## ANTHROPOLOGY (03)

### INTRODUCTION TO CULTURAL ANTHROPOLOGY

303-420

3 Cr.

Introduction to concepts and methods; variability of culture; outline of cultural elements; processes of cultural change.

## ART (04)

## STUDIO COURSES IN ART

## FUNDAMENTALS OF DESIGN

304-106

3 Cr.

Elementary design in two and three dimensions using various media with the intention of developing visual sensitivity.

## DRAWING

304-200

3 Cr.

Concentration on the development of visual sensitivity through drawing with various media.

## PAINTING

304-300

3 Cr.

Introduction to the character and use of various painting media. Work from still life and life with reference to problems of two dimensional color composition. Prerequisite: 304-401.

## SCULPTURE

304-320

3 Cr.

Introduction to sculptural concepts. Prerequisite: 304-401 or equivalent.

## DESIGN

304-332

3 Cr.

Development of ideas presented in 304-106 in depth and complexity. May be repeated. Prerequisites: 304-106, 304-401.

## INTERIOR DESIGN

304-334

3 Cr.

Problems involving the design, selection, and arrangement of furnishings for living and working quarters. Prerequisite: 304-106.

## CRAFTS

304-400

3 Cr.

Emphasis on original designs in metal, leather, enamel, and weaving. Prerequisite: 304-106 or equivalent.

## DRAWING

304-401

3 Cr.

Continuation of 304-200 with emphasis placed on the exploitation of media for creative and expressive ends. May be repeated. Prerequisite: 304-200.

## PAINTING

304-402

3 Cr.

Advanced work in oil painting, with reference to the exploitation on the medium for creative and expressive ends. May be repeated. Prerequisite: 304-300.

## SCULPTURE

304-403

3 Cr.

Advanced problems in sculpture with reference to the exploitation of media for creative and expressive ends. May be repeated. Prerequisite: 304-320.

## CERAMICS

394-410

3 Cr.

Basic design and techniques of ceramic production for the artist-potter; forming, firing, and decorating.

## CERAMICS

304-411

3 Cr.

Techniques in the use of clay, glazes, and kiln for the design and production of high fired ceramics. May be repeated. Prerequisite: 304-410.

## LIFE DRAWING

304-420

3 Cr.

The human figure in action and at rest. Problems in figure composition. Prerequisites: 304-200, 304-401.

## LIFE DRAWING

304-421

3 Cr.

Advanced problems in figure composition and in graphic interpretation of the figure. May be repeated. Prerequisite: 304-420.

## PROBLEMS IN INTERIOR DESIGN

304-423

2 Cr.

Advanced work in the design, selection and arrangement of furnishings for living and working quarters. May be repeated. Prerequisite: 304-334.

## WEAVING

304-424

2 Cr.

Warping a loom; elementary and complex weaving. Prerequisite: 304-106.

## WEAVING

304-425

2 Cr.

Advanced problems in weaving. May be repeated. Prerequisite: 304-424.

## COSTUME DESIGN

304-436

2 Cr.

Development of original designs for clothing. May be repeated. Prerequisites: 214-218, 304-106, 304-200, 304-401.

## ART METAL

304-440

3 Cr.

The design and construction of objects in precious metals. Prerequisite: 304-106 or equivalent.

## ART METAL

304-441

3 Cr.

Advanced problems in the design and construction of objects in precious metals. May be repeated. Prerequisite: 304-440.

## HOUSING

304-448

3 Cr.

Problems in dwelling construction with consideration given to location of the lot, family activities, materials, and cost. Prerequisite: 304-106 or equivalent.

## PRINTMAKING

304-451

3 Cr.

Introduction to printing media by the fine artist. Etching, engraving, lithography, serigraphy, wood block, and wood cut and contemporary developments in relief and intaglio printing. Prerequisites: 304-401, 402.

## PRINTMAKING

304-452

3 Cr.

Continuation of 304-451 with emphasis on the exploitation of the printing media for creative and expressive ends. May be repeated. Prerequisite: 304-451.

## ART THEORY AND ART HISTORY

## INTRODUCTION TO ART

304-206

2 Cr.

Principles of visual organization, the expressive possibilities offered by materials and the level of meaning and appreciation possible in the visual arts.

## MODERN ART

304-390

3 Cr.

The main currents and developments in art from Monet and Cezanne to 1950.

## SURVEY OF ART: ANCIENT THROUGH MEDIEVAL

304-430

3 Cr.

The painting, sculpture, architecture and minor arts in the ancient Western World.

## SURVEY OF ART: THE RENAISSANCE THROUGH TO THE 20TH CENTURY

304-431

3 Cr.

Sculpture, painting, architecture and minor arts of the Western World from 14th century to present.

## ECONOMICS OF HOUSE FURNISHING

304-432

3 Cr.

Study of consumer house furnishing problems based on utilitarian, economic, aesthetic and social values of household commodities. Quantity and quality budgets at different price levels. Visits to house furnishing markets.

## PERIOD FURNISHINGS

304-434

3 Cr.

A survey of furniture and furnishings in the Western World.

## EGYPTIAN AND MESOPOTAMIAN ART

304-480

3 Cr.

The evolution of the arts of ancient Egypt and the Near East.

## GREEK AND ROMAN ART

304-481

3 Cr.

The arts of ancient Greece and Rome.

## MEDIEVAL ART

304-482

3 Cr.

The arts of Europe and Byzantium from the later Roman Empire to the end of the Middle Ages.

## ITALIAN RENAISSANCE ART

304-483

3 Cr.

The problems and the evolution of Italian Renaissance sculpture and painting from the 14th to the 18th century.

## NORTHERN RENAISSANCE ART

304-484

3 Cr.

The evolution of Renaissance art in northern Europe from the 15th to the 18th century.

## NINETEENTH CENTURY ART IN EUROPE

304-490

3 Cr.

History of European art from about 1800 to 1900.

## ART SINCE 1950

304-491

3 Cr.

Developments in painting and sculpture in Europe and America since 1950.

## ORIENTAL ART

304-492

3 Cr.

Art from prehistoric times to the 19th century in India and the Asian subcontinent.

## ORIENTAL ART

304-493

3 Cr.

Art from prehistoric times to the 19th century in China, Japan and their spheres of influence.

## ESTHETICS

304-498

3 Cr.

A seminar based on a study of statements by philosophers on art. Prerequisite: 304-390.

## BIOLOGY (08)

### GENERAL BIOLOGY

308-122

3 Cr.

Plants and animals and their importance to human welfare. The fundamental structures that determine an organism's mode of life; origin, development, inheritance, distribution, and interrelationships of plants and animals.

### PHYSIOLOGY AND ANATOMY

308-214

3 Cr.

The human anatomy based on dissection of the cat and other laboratory material; fundamental physiological processes of all the organ systems; embryological development. Prerequisite: 308-122.

### GENERAL BACTERIOLOGY

308-306

3 Cr.

Structure and physiology of yeasts, molds, and bacteria. Growth requirements; methods used in culture and identification; introductory studies in bacterial analysis of water and milk; other problems in sanitation and food bacteriology. Prerequisite: 308-122.

### BOTANY

308-314

3 Cr.

An introduction to the structure and physiology of plants; survey of the plant kingdom; structure and life history of representative forms of plant life. Prerequisite: 308-122.

### ZOOLOGY

308-316

3 Cr.

Survey of the animal kingdom; structure and physiology of representative animals; evolutionary relationships. Prerequisite: 308-122.

### ADVANCED PHYSIOLOGY

308-362

3 Cr.

Physiological processes; digestion, respiration, metabolism, excretion, circulation, and muscle. Histological studies of blood; experiments on frog and turtle hearts; nerve and muscle preparation. Respiratory, nerve, circulatory, and muscle experiments on the human body. Prerequisites: 311-115, 308-214.

### FOOD MICROBIOLOGY

308-406

3 Cr.

Fundamental methods of food preservation, their effectiveness, and the related spoilage of food products by microorganisms. Quality control techniques employed in determining the presence of specific groups of economically important microorganisms. Prerequisite: 308-306.

### HEREDITY AND EUGENICS

308-432

2 Cr.

The essential principles of genetics and eugenics and their application to the human family. Physical, physiological and mental traits in man; positive and negative eugenics and euthenics. Prerequisite: 308-122.



## COMMUNITY HYGIENE

308-442

2 Cr.

Disease prevention through education, sanitation, isolation, and immunization. Public health programs and operation of federal and state laws.

## ECOLOGY

308-450

3 Cr.

Interrelationships of organisms with their physical and biotic environments. Prerequisites: 308-314, 308-316 or parallel.

## BUSINESS ADMINISTRATION (09)

## PRINCIPLES OF ACCOUNTING

309-206

3 Cr.

The theory of debit and credit; the underlying principles of the various accounting records; modern business papers; working sheets; the balance sheet and the income statement; the sole proprietorship, the partnership.

## PRINCIPLES OF ACCOUNTING

309-207

3 Cr.

A development of the basic accounting theory which is introduced in 309-206 including partnership and corporate forms of organization. The elements of branch and manufacturing accounting are included, as well as the introduction to cost accounting, budgeting and the analysis and interpretation of financial statements. Prerequisite: 309-206.

## PRACTICAL MATHEMATICS OF FINANCE

309-210

3 Cr.

Application of fundamentals of mathematics to business transactions: Interest, annuities, bonds, depreciation, present value analysis, life insurance. Prerequisite: 355-109 or equivalent.

## SMALL BUSINESS MANAGEMENT

309-230

3 Cr.

Introduction to the various aspects of business management, especially at the level of small business. Prerequisites: 309-206, 320-210, 320-201.

## BUSINESS DATA PROCESSING

309-245

3 Cr.

Development of a basic understanding of data processing principles; introduction to business data processing equipment, and a description and analysis of the impact of this equipment and these principles on the business environment.

## FIELD EXPERIENCE

309-298

2 Cr.

A required off-campus experience of approximately eight weeks in an approved position where the management and/or administrative techniques and policies may be observed and evaluated. Course requirements include weekly summary sheets, a final written report, and an oral seminar. Prerequisite: 309-304 or consent of advisor.

**PRINCIPLES OF BUSINESS ORGANIZATION**

309-304

3 Cr.

Studying in depth the basic managerial functions of planning, organizing, staffing, directing, and controlling, including the principles of management which have universal application to all types of organizations; nature of authority and responsibility, departmentation, line and staff relations; the enterprise manager in his social setting, comparative management, and management and the future. Prerequisites: 309-207, 320-211 or consent of instructor.

**BUSINESS LAW**

309-318

3 Cr.

Introduction to law, contracts, agency nature and types of negotiable instruments. Prerequisite: Junior standing or consent of instructor.

**BUSINESS STATISTICS**

309-325

3 Cr.

Method of collection, analysis, and presentation of economics, social, and business data. Ratios, frequency distributions, averages, variability, linear regression, correlation, time series analysis, and principles of index numbers. Prerequisite: 355-109 or equivalent.

**PRINCIPLES OF MARKETING**

309-330

3 Cr.

Retailing, wholesaling, advertising, channels of distribution, cooperative marketing, pricing, marketing research, and marketing legislation from the standpoint of consumers, middlemen, and manufacturers. Prerequisites: 320-210, 211.

**BUSINESS FINANCE**

309-340

3 Cr.

Principles governing the planning, raising, and controlling of short and long term funds for a business enterprise, large or small, corporate or noncorporate. Financial aspects of promotion and organization, sources of financing, and the administration of income; failure and reorganization. Prerequisites: 320-211, 309-207, or consent of instructor.

**SALESMANSHIP AND SALES MANAGEMENT**

309-404

3 Cr.

Basic concepts of selling, including locating prospects, securing and conducting sales presentations, analyzing and handling different types of customers, closing sale, maintaining goodwill. Study of sales organizations with emphasis on recruitment, selection, training compensation, and cost control methods. Prerequisite: 309-330.

**COST ACCOUNTING**

309-410

3 Cr.

Cost accounting principles and procedures relating to job order, process, and standard costing; elements of cost, cost control, and cost reports. Prerequisite: 309-207.

**INCOME TAX ACCOUNTING**

309-420

3 Cr.

Principles involved in determining taxable net income, and computation of federal and state income taxes for individuals, partnerships, and corporations. Prerequisite: 309-207.

**RETAIL MERCHANDISING AND MANAGEMENT**

309-423

3 Cr.

Retail sales promotional techniques and practices with particular emphasis on display, layout, retail and cooperative advertising, mathematics of merchandising. Retail management problems such as store location, types of goods stocked, inventory financing, credit operation, etc. Prerequisite: 309-330.

**MANAGERIAL ACCOUNTING**

309-435

3 Cr.

Provides students majoring in general business with an understanding of the significance of accounting data without involvement in mechanical techniques. Interpretation of financial statements, internal control, budgeting, costing of products manufactured and sold, analysis of cost-volume-profit decisions. Prerequisites: 309-207, 320-211, or consent of instructor.

**REGULATION OF INDUSTRY**

309-450

3 Cr.

Economic concentration lessening competition or creating a monopoly and maintaining competition; changing relationships between government and industry, emphasizing regulatory legislation, administrative agencies, national policies, and social control. Prerequisite: 320-211.

**PRINCIPLES OF INSURANCE**

309-455

3 Cr.

Basic principles of risk and insurance and their applications to business, management, and personal affairs. Analysis of concepts and methods of handling risks; insurance carriers and contracts and underwriting; loss prevention and settlement, government insurance programs. Economic functions of insurance. Prerequisite: 320-211 or consent of instructor.

**PRINCIPLES OF ADVERTISING**

309-470

3 Cr.

A survey course presenting the psychological, social, and economic aspects of advertising. Advertising is presented in its relationship to the other factors of distribution with emphasis on the place of advertising in modern business. Prerequisite: 309-330 or consent of instructor.

**MARKETING RESEARCH**

309-479

3 Cr.

Experimental and survey techniques used to secure information necessary for successful marketing such as who buys what; when, where, how and why. Primary and secondary sources of information examined. Data collection, compilation, and analysis methods reviewed plus effective communication of conclusions and recommendations to management. Prerequisites: 309-325, 309-330.

## ADMINISTRATIVE AND BUSINESS POLICIES

309-490

3 Cr.

Integrates the student's previous studies in business, and further develops his ability to deal more effectively with business problems by learning and applying the scientific approach to decision making. Includes business cases on policy formulation and administration, involving the functions of manufacturing, marketing, finance, accounting, personnel, and public relations. Prerequisite: Senior standing.

## CHEMISTRY (11)

## FUNDAMENTALS OF CHEMISTRY

311-100

0 Cr.

Some of the fundamental concepts of chemistry. The course includes the metric system and the common mathematical manipulations of general chemistry.

## INORGANIC CHEMISTRY

311-115

5 Cr.

The basic principles of inorganic chemistry; some of the important elements and compounds and their major applications to modern life.

## INORGANIC CHEMISTRY

311-135

5 Cr.

Principles of inorganic chemistry and the properties of important elements and compounds. Approach is more rigorous and coverage more extensive than in 311-115. Prerequisite: Demonstrated competence in academic work.

## INORGANIC CHEMISTRY

311-136

4 Cr.

A continuation of 311-115 or 311-135. Principles of chemistry and study of the elements based on the periodic table. Includes chemical and physical properties, source and preparation, common compounds, industrial processes. Prerequisite: 311-115 or 311-135.

## ORGANIC CHEMISTRY

311-208

4 Cr.

An introduction to the chemistry of carbon compounds with emphasis on the characteristic reactions of the several functional groups. Aliphatic aromatic compounds are studied concurrently. Prerequisite: 311-115 or 311-135.

## ORGANIC CHEMISTRY (LECTURE ONLY)

311-209

2 Cr.

An introduction to the chemistry of carbon compounds with emphasis on the characteristic reactions of the several functional groups. Aliphatic and aromatic compounds are studied concurrently. Prerequisite: 311-115 or 311-135.

**BIOCHEMISTRY**

311-322

3 Cr.

Digestion and metabolism of carbohydrates, fats, and proteins. Analysis of blood, urine, and other body fluids and tissues; nutritional significance of minerals, vitamins, enzymes, and hormones. Prerequisites: 311-208, 308-214.

**FOOD CHEMISTRY**

311-411

3 Cr.

Organic and biochemistry of foods, with emphasis on the enzymatic and non-enzymatic changes associated with food preparation and storage, such as the Maillard-Browning reaction, denaturation of protein, changes in color, flavor, odor, texture and nutritive value. Techniques for the isolation and identification of the biochemical constituents of foods. Prerequisite: 311-208 or 311-209 lecture (311-438 and 311-322 recommended).

**PHYSICAL CHEMISTRY**

311-417

3 Cr.

Fundamental physical chemistry; the behavior of gases, the liquid state, the properties of solution, the principles of thermodynamics, thermochemistry. Prerequisites: 311-115 or 311-135, 355-156, (311-438 recommended).

**TEXTILE CHEMISTRY**

311-418

3 Cr.

Chemical and physical properties of monomers and high polymers of the following natural and synthetic fibers: cotton, cellulose derivatives, silk, wool, linen, nylon, polyesters, acrylics, olefins and polyurethanes. Prerequisite: 311-208 or 209.

**CHEMISTRY OF POLYMERS**

311-421

3 Cr.

An elementary study of the chemical and physical nature of polymers and of the methods of preparation and the uses of the principal types of polymeric substances. Prerequisite: 311-208 or 209.

**PHYSICAL CHEMISTRY LABORATORY**

311-428

1 Cr.

Laboratory which may accompany physical chemistry, normally taken concurrently. Experimental techniques and apparatus. Treatment of experimental data. Prerequisites: 311-115 or 311-135, 355-156, (311-438 recommended).

**QUALITATIVE ANALYSIS**

311-436

3 Cr.

The principles of equilibrium and solution chemistry, based on the laboratory procedures of separating and identifying some common cations and anions. Prerequisite: 311-115 or 311-135.

**QUANTITATIVE ANALYSIS**

311-438

3 Cr.

Introduction to the principles of quantitative chemical analysis and training in precision laboratory techniques. Prerequisite: 311-115 or 311-135.

**CHEMISTRY OF MATERIALS**

311-445

3 Cr.

Composition properties, and uses of common industrial and engineering materials; fuels and lubricants, iron and steel, nonferrous metals and alloys, cement, paint and varnishes, synthetic rubber, and plastics. Prerequisite: 311-115 or 311-135.

**ECONOMICS (20)****GENERAL ECONOMICS**

320-201

3 Cr.

Introduction to the basic elements of economics. Analysis of economic institutions, issues, and policy; theories of price, national income, and employment. Not open to students taking 320-210 and 211. Prerequisite: Sophomore standing.

**MONEY AND BANKING**

320-207

3 Cr.

Nature of money and bank credit; modern monetary theories; monetary policy. Emphasis on economic aspects rather than institutional description. Prerequisite: 320-201 or 320-210.

**PRINCIPLES OF ECONOMICS I**

320-210

3 Cr.

Economic activities and institutions; price theory, income distribution, market mechanisms; functions of economic systems. Prerequisite: Sophomore standing.

**PRINCIPLES OF ECONOMICS II**

320-211

3 Cr.

National income and employment analysis; business fluctuations; money and banking; industrial and labor relationships; international economics. Prerequisite: 320-210.

**COMPARATIVE ECONOMIC SYSTEMS**

320-370

3 Cr.

Functions of all economic systems. Theories of capitalist, communist, and socialist systems. Comparison of the systems of different countries. Prerequisite: 320-211.

**LABOR ECONOMICS**

320-414

3 Cr.

History of organized labor chiefly in Western industrial societies. Collective bargaining as viewed by labor, management, government, and the public. Basic labor economics; the institutions involved in modern labor relations. Prerequisite: 320-201 or 320-210.

**ECONOMIC DEVELOPMENT**

320-416

3 Cr.

Social and economic factors underlying economic development. Capital formation, measurement of growth, population problems. Considers both theory and practical problems. Prerequisite: 320-211.



## PUBLIC FINANCE

320-445

3 Cr.

Survey of public finance at all governmental levels; taxation, expenditures, debt management, and fiscal policy. Prerequisite: 320-211.

## MANAGERIAL ECONOMICS

320-450

3 Cr.

Decision-making in the firm; demand and cost analysis; competitive and non-competitive price systems, marketing problems, capital budgeting, and criteria for investment decisions. Prerequisite: 320-211.

## HISTORY OF ECONOMIC THOUGHT

320-453

3 Cr.

Principal economic writings of classical, neoclassical, and contemporary economists. Prerequisite: 320-211.

## INTERMEDIATE ECONOMIC ANALYSIS I

320-459

3 Cr.

Macroeconomics: value and distribution theory; analysis of demand-firm, industry and utility; pricing of factors of production. Prerequisite: 320-211.

## INTERMEDIATE ECONOMIC ANALYSIS II

320-460

3 Cr.

Macroeconomics: determination of income, employment, growth rates, and price levels. Monetary and fiscal policies necessary for full employment. Prerequisite: 320-211.

## PRINCIPLES OF INTERNATIONAL TRADE

320-480

3 Cr.

Theory and practice. Capital movements; foreign exchange rates and controls; balance of payments; tariffs. Prerequisite: 320-211.

## ENGLISH (26)

## ENGLISH WRITING LABORATORY

326-100

0 Cr.

Open to selected students for individual needs. New structural and linguistic approaches to basic writing.

## FRESHMAN ENGLISH: COMPOSITION

326-101

3 Cr.

The principles and practices of writing. Includes a documented paper.

## FRESHMAN ENGLISH: READING AND RELATED WRITING

326-102

3 Cr.

Readings focused on a theme reflected in literature. Specific topics and approaches are developed by each instructor. Opportunity for the student to do responsible, independent study. Requires intensive practice in composition. Prerequisite: 326-101.



**PUBLIC FINANCE**

320-445

3 Cr.

Survey of public finance at all governmental levels; taxation, expenditures, debt management, and fiscal policy. Prerequisite: 320-211.

**MANAGERIAL ECONOMICS**

320-450

3 Cr.

Decision-making in the firm; demand and cost analysis; competitive and non-competitive price systems, marketing problems, capital budgeting, and criteria for investment decisions. Prerequisite: 320-211.

**HISTORY OF ECONOMIC THOUGHT**

320-453

3 Cr.

Principal economic writings of classical, neoclassical, and contemporary economists. Prerequisite: 320-211.

**INTERMEDIATE ECONOMIC ANALYSIS I**

320-459

3 Cr.

Macroeconomics: value and distribution theory; analysis of demand-firm, industry and utility; pricing of factors of production. Prerequisite: 320-211.

**INTERMEDIATE ECONOMIC ANALYSIS II**

320-460

3 Cr.

Macroeconomics: determination of income, employment, growth rates, and price levels. Monetary and fiscal policies necessary for full employment. Prerequisite: 320-211.

**PRINCIPLES OF INTERNATIONAL TRADE**

320-480

3 Cr.

Theory and practice. Capital movements; foreign exchange rates and controls; balance of payments; tariffs. Prerequisite: 320-211.

**ENGLISH (26)****ENGLISH WRITING LABORATORY**

326-100

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Open to selected students for individual needs. New structural and linguistic approaches to basic writing.

**FRESHMAN ENGLISH: COMPOSITION**

326-101

3 Cr.

The principles and practices of writing. Includes a documented paper.

**FRESHMAN ENGLISH: READING AND RELATED WRITING**

326-102

3 Cr.

Readings focused on a theme reflected in literature. Specific topics and approaches are developed by each instructor. Opportunity for the student to do responsible, independent study. Requires intensive practice in composition. Prerequisite: 326-101.

## FRESHMAN ENGLISH: HONORS

326-111 3 Cr.  
Readings in world literature and related writing designed for training in techniques of composition. Includes a documented paper. Prerequisite: Departmental selection on basis of ability.

## FRESHMAN ENGLISH: HONORS

326-112 3 Cr.  
Continuation of 326-111. Prerequisite: Departmental selection on basis of ability.

## THE SHORT STORY

326-204 3 Cr.  
The style, structure, history and development of the short story as a literary form. Prerequisite: 326-102 or 326-112.

## ANCIENT LITERATURE IN ENGLISH TRANSLATION

326-250 3 Cr.  
Selections from Greek, Hebrew, and Latin literature. Prerequisite: 326-102 or 326-112.

## EUROPEAN LITERATURE IN TRANSLATION

326-251 3 Cr.  
Selected poetry, prose, and drama from Dante to present day. Prerequisite: 326-102 or 326-112.

## CHILDREN'S LITERATURE

326-300 3 Cr.  
Critical and evaluative survey of literature for young children with practical application to children and writing for them. Does not satisfy basic literature requirement. Prerequisite: 326-102 or 326-112.

## POETRY

326-304 3 Cr.  
Basic approach to narrative, dramatic, lyric poetry with emphasis on contemporary writers. Prerequisite: 326-102 or 326-112.

## INTRODUCTION TO LINGUISTICS

326-339 3 Cr.  
An introduction to scholarly writing on the nature of language and the fundamental concepts and methodology of linguistic science, stressing those aspects which are accepted by most linguists. Prerequisite: 326-102 or 326-112.

## THE STRUCTURE OF ENGLISH

326-340 3 Cr.  
New analytic and descriptive methods applied to Modern English. Prerequisite: 326-102 or 326-112.

## CONTEMPORARY RHETORIC

326-344 3 Cr.  
The theory and contemporary practice of the art of written persuasion. Prerequisite: 326-102 or 326-112.

## CREATIVE WRITING

326-345

3 Cr.

All aspects of imaginative writing. Prerequisites: 326-102 or 326-112 and permission of the department. Course does not satisfy, except by permission, advanced writing requirement in English.

## EXPOSITORY WRITING

326-346

3 Cr.

Factual writing including preparation of documented investigative paper. Prerequisite: 326-102 or 326-112.

## CRITICAL WRITING

326-347

3 Cr.

The art of evaluation and judgment. The writing of critical reviews and articles. Prerequisite: 326-102 or 326-112.

## AMERICAN LITERATURE

326-348

3 Cr.

American prose and poetry from its beginnings to World War I. Prerequisite: 326-102 or 326-112.

## MODERN BRITISH WRITERS

326-350

3 Cr.

Selected poetry, prose, and fiction produced since World War I. Prerequisite: 326-102 or 326-112.

## MODERN AMERICAN WRITERS

326-360

3 Cr.

Selected poetry, prose, and drama produced since World War I. Prerequisite: 326-102 or 326-112.

## THE COMIC SPIRIT

326-364

3 Cr.

Studies in the comic impulse and the various forms it has taken at different times. Prerequisite: 326-102 or 326-112.

## THE TRAGIC VISION

326-365

3 Cr.

Studies in the tragic impulse and the various forms it has taken at different times. Prerequisite: 326-102 or 326-112.

REGIONALISM AND CULTURAL CONFLICT IN  
AMERICAN WRITERS

326-370

3 Cr.

Two interlaced aspects of American writing: The use of geographical region or cultural setting and the inevitable cultural conflicts resulting from economic and social change. Prerequisite: 326-102 or 326-112.

## BLACK LITERATURE

326-371

3 Cr.

A panorama of Black creative effort through the written word with a fuller study of selected Black writers. Prerequisite: 326-102 or 326-112.

## ENGLISH LITERATURE

326-400

3 Cr.

Selected English prose and poetry from Beowulf to 1798. Prerequisite: 326-102 or 326-112.

## ENGLISH LITERATURE

326-401

3 Cr.

Selected prose and poetry from 1798 to modern times. Prerequisite: 326-102 or 326-112.

## CONCEPTS OF LITERARY CRITICISM

326-402

3 Cr.

A systematic approach to literary theory, criticism, and history. The science and art of form and structure as presented by great critics with emphasis on new criticism. Prerequisite: Minimum of one course in literature.

## HISTORY OF THE ENGLISH NOVEL

326-403

3 Cr.

Origin and development of the novel. Selected readings. Prerequisite: 326-102 or 326-112.

## SHAKESPEARE

326-406

3 Cr.

Representative plays of Shakespeare. Study of twenty plays and selected criticism. Prerequisite: 326-102 or 326-112.

## TECHNICAL WRITING FOR HOME ECONOMICS

326-415

3 Cr.

An overview of specialized writing done by home economists in business. Experience in preparing reports, letters, and other appropriate materials. Prerequisite: 326-344 or 326-346 or 347 or consent of instructor.

## TECHNICAL WRITING FOR INDUSTRY

326-416

3 Cr.

A survey of the type of writing current in industry. Writing of business reports and other materials. Prerequisite: 326-344 or 326-347 or consent of instructor.

## RESEARCH REPORTING

326-446

2 Cr.

Effective organization and presentation of individual research.

## A DEPTH STUDY IN LITERATURE

326-450

3 Cr.

A penetrating study of a selected writer with reference to sources, forms, and influences. Selected writer varies from semester to semester. Prerequisite: Consent of instructor or 9 credits of literature.

## JOURNALISM (26)

### REPORTING AND NEWS WRITING

326-306

2 Cr.

Theory and practice of news gathering and reporting, journalistic style, copy and proof reading. Discriminative newspaper reading; the history of journalism, libel. Prerequisite: 326-102 or 326-112.

### MASS COMMUNICATION IN AMERICAN SOCIETY

326-318

3 Cr.

History, social implications, and future of the mass media of communications; vocational opportunities in the media. Prerequisite: 326-102 or 326-112.

### WRITING AND SELLING FEATURE ARTICLES

326-410

2 Cr.

Practice in techniques of writing and selling feature articles for appropriate markets. Students are required to submit articles for potential publication. Prerequisite: 326-102 or 326-112.

### COPY EDITING AND PREPARATION

326-425

2 Cr.

Development of skill in expanding and reducing written materials. Experience in copy reading, proof reading, headlines. Prerequisite: 137-117 or consent of instructor.

### PUBLIC RELATIONS

421-479

2 Cr.

Defines the public, objectives, and media of public relations in industry and education. Provides practice with such tools as news stories and features.

## FRENCH (28)

### ELEMENTARY FRENCH I

328-101

4 Cr.

Introduction to the language; reading, writing, composition, and special emphasis on conversation.

### ELEMENTARY FRENCH II

328-102

4 Cr.

Prerequisite: 328-101.

### INTERMEDIATE FRENCH I

328-201

4 Cr.

Extensive and intensive reading in the language, review of grammar and oral practice. Prerequisite: 328-102 or two years of high school French.

### INTERMEDIATE FRENCH II

328-202

4 Cr.

Prerequisite: 328-201.

## GEOGRAPHY (36)

### WORLD GEOGRAPHY

336-104

3 Cr.

Peoples and places of the world today. Causes and significance of areal differentiations in terrain and human life.

## HISTORY (38)

### UNITED STATES HISTORY

338-101

3 Cr.

American history of 1865. Political, economic, and social forces which have shaped the nation to the close of the Civil War. Not available to students who have completed 338-407.

### UNITED STATES HISTORY

338-102

3 Cr.

Continuation of 338-101. Not available to students who have completed 338-407. Prerequisite: 338-101.

### WESTERN CIVILIZATION

338-151

3 Cr.

Survey of Western civilization along the Nile, the Fertile Crescent, through Greece, Rome, the Middle Ages, the Renaissance, and the Reformation.

### WESTERN CIVILIZATION

338-152

3 Cr.

A survey of Western civilization from the Reformation to the present.

### ENGLISH HISTORY

338-212

3 Cr.

The social, political, religious, military and economic history of Great Britain from the Restoration in 1660 to modern times.

### ECONOMIC HISTORY OF THE UNITED STATES

338-401

3 Cr.

Economic evolution of the United States since colonial times. Development of economic problems and the foundations of modern industry. Prerequisite: 320-201 or 320-210.

### BIOGRAPHY OF WORLD LEADERS

338-405

2 Cr.

Readings in the biographies and autobiographies of American, European, and modern world leaders.

### HISTORY OF AMERICA

338-407

3 Cr.

Survey of the United States. Not open to those taking the 22-credit minor, nor those who have completed 338-101 or 102.

## RECENT HISTORY OF THE UNITED STATES

338-409

2 Cr.

American history in the twentieth century. Study of recent world development in which the United States has played a part.

## MODERN WORLD

338-410

3 Cr.

Modern trends in terms of historical backgrounds, providing a frame of reference for interpreting the contemporary world. United Nations.

## HISTORY OF MODERN RUSSIA

338-418

3 Cr.

Survey of significant developments in Russia since 1815.

## ASIAN HISTORY

338-422

3 Cr.

A historical survey — political, social, religious, economic. Emphasis on India, China, Japan, and the Philippines during the modern world.

## LATIN AMERICAN HISTORY

338-423

3 Cr.

A historical survey — political, social, economic — of Middle and South America, pre-Columbian to the present.

## AFRO-AMERICAN HISTORY

338-435

3 Cr.

A social, cultural, and political history of the Afro-American in the New World, with the main emphasis upon the United States. Prerequisite: Any college history course.

## APPLIED MATHEMATICS (54)

An average of C or better in mathematics courses is strongly recommended as prerequisite for entrance into all mathematics courses above 200.

## COMPUTATIONAL STATISTICS

354-130

2 Cr.

Organization and presentation of data, computation of descriptive constants, regression and correlation theory and computation, elementary sampling theory; introduction to normal, binominal distributions, tests of hypothesis. One year of high school algebra is desirable.

## DIGITAL COMPUTER PROGRAMMING

354-141

2 Cr.

Introduction to computer systems and their utilization. Emphasis on translating language and mathematical procedures of problem solving. Prerequisite: 355-120.



## ADVANCED COMPUTER PROGRAMMING

354-241

2 Cr.

Extension of the use of translating language with subprograms. Emphasis on assembly language and operation of a data processing system. Prerequisite: 354-141.

## NUMERICAL METHODS

354-245

2 Cr.

Computer programming and numerical methods for the solutions of equations, simultaneous equations, interpolation, numerical differentiation and integration, statistical analysis. Prerequisite: 355-153 or 355-156.

## MATHEMATICAL STATISTICS

354-332

3 Cr.

The mathematical treatment of statistical data, frequency distribution functions, sampling theory, hypothesis testing, estimation and statistical design. Prerequisite: 355-154 or 355-157.

## INDUSTRIAL STATISTICS I

354-430

2 Cr.

Review of statistical methods, hypothesis testing, estimation, goodness of fit, and sampling distributions. Emphasis on design experiments; statistical problems from business and industry. Prerequisite: 354-130.

## INDUSTRIAL STATISTICS II

354-431

2 Cr.

Continuation of application of statistics to problems from industry and business. Directed independent work on selected problems. Introduction to sequential analysis. Prerequisite: 354-332.

## NUMERICAL ANALYSIS

354-445

3 Cr.

Mathematical theory supporting numerical methods by computer programming for solution of equations, simultaneous equations, numerical differentiation and integration, and approximation procedures. Prerequisites: 355-255, 354-245, 355-275.

## MATHEMATICAL MODELS I

354-490

2 Cr.

Supervised experiences in the construction of mathematical models for the solution of problems in the area of student needs and interests. Resource materials. Prerequisite: Senior standing in applied mathematics major.

## MATHEMATICAL MODELS II

354-491

2 Cr.

Continuation of Mathematical Models I. Prerequisite: 354-490.

## MATHEMATICS (55)

Entrance into courses 355-100, 355-120 or 355-156 is based on ability as demonstrated by high school record and a proficiency test.

An average of C or better in mathematics courses is strongly recommended as prerequisite for entrance into all mathematics courses above 200.

\*Courses which are being phased out.

## FUNDAMENTALS OF ALGEBRA

355-100

0 Cr.

A review of the fundamental principles of elementary algebra.

## COLLEGE ALGEBRA\*

355-109

4 Cr.

Introduction to the real number system through logic, sets, and deductive reasoning; basic concepts of relations and functions. Prerequisite: Demonstrated proficiency.

## SLIDE RULE

355-110

1 Cr.

Scientific notation, principles of the slide rule; basic operations including multiplication, division, ratio and proportion, powers, roots, logarithmic and trigonometric functions.

## TRIGONOMETRY\*

355-113

3 Cr.

Introduction to the elements of trigonometry and the transcendental functions; solution of triangles; logarithms. Prerequisite: 355-109.

## ANALYTIC GEOMETRY\*

355-114

3 Cr.

Algebraic treatment of geometry, graphical analysis of the straight line, circle, and conic sections. Simplification of equations; transcendental curves; polar coordinate system. Not open to students who have completed 355-150, 151, 355-156, 157, 158. Prerequisite: 355-113.

## INTRODUCTORY COLLEGE MATHEMATICS I

355-120

4 Cr.

Symbolic logic and the nature of proof, set theory, counting numbers, integers rational numbers, and the real number system. Prerequisite: Demonstrated Proficiency.

## INTRODUCTORY COLLEGE MATHEMATICS II

355-121

4 Cr.

Open sentences, relations and functions, algebra of functions—Trigonometric, exponential, and logarithmic. Prerequisite: 355-120.

## MATHEMATICAL ANALYSIS I\*

355-150

4 Cr.

Nature of mathematics. Sets; real number system as a logical deductive system; operations on algebraic expressions; inequalities, absolute values; circular, linear, and quadratic functions; determinants. Prerequisite: Demonstrated proficiency.

## MATHEMATICAL ANALYSIS II\*

355-151

4 Cr.

Binomial expansion; mathematical induction; functions, limits, continuity; differentiation with application; inverse, exponential, and logarithmic function; complex numbers; elementary analytic geometry. Prerequisite: 355-150.

## CALCULUS I

355-153

4 Cr.

Functions, limits, continuity, bounds, sets; the derivative of functions and applications; exponential, logarithmic, trigonometric and inverse functions. Not open to students who have completed 355-156, 157 or 158. Prerequisite: 355-121 or equivalent.

## CALCULUS II

355-154

4 Cr.

Continuation of Calculus I. Antiderivatives; integration theory, techniques, and applications; parametric equations; vectors.

## CALCULUS AND ANALYTIC GEOMETRY I

355-156

5 Cr.

Review of real numbers, inequalities, absolute values, intervals, and continuity. Analytic geometry of the plane. Limit concepts, derivatives of algebraic functions; definite integral. Not open to students who have completed 355-150, 151, 355-153 or 154. Prerequisite: Demonstrated proficiency.

## CALCULUS AND ANALYTIC GEOMETRY II

355-157

5 Cr.

Application of the derivative and definite integral. Conic sections, and other algebraic curves. Calculus for rational, algebraic, circular, exponential and trigonometric functions; formal integration. Prerequisite: 355-156.

## CALCULUS AND ANALYTIC GEOMETRY III\*

355-158

5 Cr.

Continuation of formal integration. Parametric equations, polar representation; Simpson's Rule, Cauchy's Formula, Taylor's Theorem; infinite series, solid analytic geometry, vectors, partial differentiation, multiple integration. Prerequisite: 355-157.

## DIFFERENTIAL EQUATIONS

355-255

3 Cr.

Common types of ordinary differential equations of the first and second order; linear equations with constant coefficient; series solutions, numerical approximations, systems of ordinary equations. Prerequisite: 355-154 or 355-157.

**MODERN GEOMETRY**

355-265

3 Cr.

Vector approach to plane and solid analytic geometry. Lines, conics, spheres, planes, second and third order determinants, distance functions, loci, vector products, transformation of coordinates. Prerequisite: 355-153 or 355-156.

**LINEAR ALGEBRA**

355-275

3 Cr.

Algebra of linear transformations and matrices. Determinants, equivalence relations, rank systems of equations, vector spaces, orthogonal transformations, characteristic equations and quadratic forms. Prerequisite: 355-153 or 355-156.

**PROBABILITY THEORY**

355-331

3 Cr.

Probability in discrete sample spaces. Conditional probabilities, independent events, combinatorial analysis, random variables. Prerequisite: 355-153 or 355-156.

**REAL ANALYSIS I**

355-350

3 Cr.

Rigorous development of advanced topics in analysis. Functions, real numbers, sequences, cartesian spaces, sequences of functions, limit superior and inferior, continuous functions. Prerequisite: 355-154 or 355-157.

**REAL ANALYSIS II**

355-351

3 Cr.

Continuation of the topics of Real Analysis I. Differentiation, integration, infinite series. Prerequisite: 355-350.

**MODERN ALGEBRA I**

355-470

3 Cr.

Set theory, mappings, equivalence relations and classes, mathematical induction, Peano's postulates, isomorphisms; development of natural numbers, integers, rational, and real numbers; introduction to integral domains and rings. Prerequisite: 2 years of college mathematics.

**MODERN ALGEBRA II**

355-471

3 Cr.

Continuation of Modern Algebra I. Rings, integral domains, fields, polynomials, groups, vector spaces. Introduction to the algebra of matrices. Prerequisite: 355-470.

## MUSIC (60)

The objective of the Stout music department is to provide musical experience and opportunities for the development of understanding and appreciation of music. The study of this art not only enhances intellectual acumen but also provides aesthetic enjoyment and aids in the development of social coordination through group effort. The organizations seek to further the interests of musical culture and entertainment and to enhance the spirit and character of the university.

The musical organizations are open to any student in the university who can qualify and may be taken for credit as academic electives. All students are invited to attend concerts and may elect music courses and organizations for university credit.

### APPLIED MUSIC

360-100

1 Cr.

Prerequisite: Audition.

### RUDIMENTS OF MUSIC FOR EARLY CHILDHOOD EDUCATION MAJORS

360-134

1 Cr.

A study of the fundamental elements of music; i.e. note reading, pitch, rhythm and vocabulary. Emphasis is placed on the use of flutophone, autoharp, rhythm instruments, and the voice in class. A survey of materials and methods suitable for early childhood music is made.

### RUDIMENTS OF MUSIC

360-134

1 Cr.

An integrated survey course in the fundamentals of musicianship: solfeggio, practical harmony, notation, arranging.

### HARMONY 1A

360-151

1 Cr.

A detailed study of chord construction. All triads in major and minor modes, and dominant sevenths and their inversions. Dispersed harmony. Keyboard work and the playing of cadences.

### MUSIC APPRECIATION

360-153A

2 Cr.

The materials of music as they pertain to perceptive listening. Study is related to the music of the nineteenth century and seeks to lead the student to a significant awareness of great music.

### GLEE CLUB

360-165

0 Cr.

Testing and classification of voices, basic principles of good choral techniques. Provides the training necessary for membership in the Symphonic Singers.

### PEP BAND

360-180

0 Cr.

An extension of the concert band. Performs at all home basketball games and two away games.

## STAGE BAND

360-190

0 Cr.

Primarily organized to study and perform the music of the large dance band. Membership by audition only. Membership open to any qualified Stout Student.

## APPLIED MUSIC

360-200

1 Cr.

Prerequisite: Audition and 360-100.

## ADVANCED TOPICS OF MUSIC

360-234

1 Cr.

A continuation of 360-134 with considerable freedom for specialization according to individual needs, interest, and ability. Prerequisite: 360-134.

## COLLEGE CHOIR

360-265

1 Cr.

Advanced choral techniques, reading and analysis of choral music of all types and periods. Concert and radio appearances. Membership by audition only.

## STOUT CONCERT BAND

360-266

1 Cr.

Membership by audition only. Fundamentals of musical expression, tone production and quality, and special problems of technique. Formal concerts and radio broadcasting. Each spring instrumentalists are selected for the annual spring tour.

## STOUT SYMPHONIC SINGERS

360-267

1 Cr.

Membership by audition only. Advanced choral techniques, reading and analysis of choral music of all types and periods. Each spring vocalists are selected for the annual spring tour.

## SOLO AND ENSEMBLE

360-268

 $\frac{1}{2}$  Cr.

Coaching of advanced performers, both vocal and instrumental, for public performance and radio work. Prerequisite: 360-266 or 360-267.

## APPLIED MUSIC

360-300

1 Cr.

Prerequisites: Audition and 360-200.

## APPLIED MUSIC

360-400

1 Cr.

Prerequisites: Audition and 360-300.

## NURSING — COOPERATIVE TRAINING PROGRAM

Young women who plan to enter the three-year program of the Madison General Hospital School of Nursing, Madison, Wisconsin, are able to complete the entire first year of that program on the Stout campus and then enter directly the clinical program at the School of Nursing in Madison. During her September-June year at Stout State University, each nursing student completes specified credits in English, chemistry, physiology and anatomy, biology, zoology, psychology, sociology, and elective subjects.

### PHILOSOPHY (65)

#### INTRODUCTION TO PHILOSOPHY

365-101

3 Cr.

Introduction to the various fields of philosophy, the history of philosophy, and the nature of philosophical investigation.

#### INTRODUCTION TO LOGIC AND SCIENTIFIC METHODS

365-301

3 Cr.

An examination of the forms of deductive reasoning and the fallacies together with a consideration of the inductive logic of evidence, confirmation, and probability.

### PHYSICAL EDUCATION AND ATHLETICS (66)

#### PERSONAL HEALTH

366-101 Semester 1, 2

1 Cr.

The relationship of personal health in the whole person. Of particular interest to the professional leader in education and community health practices.

#### FIRST AID AND SAFETY

366-240

2 Cr.

American Red Cross requirements for standard and advanced First Aid. Safety practices for emergencies in the home, classroom, playground or business.

#### CAMP LEADERSHIP

366-370

2 Cr.

Role of camp counselors in relationship to objectives, organization, guidance, leadership skills, and program resources in organized camps; actual practice in camp-craft skills.

#### TEACHING METHODS IN PHYSICAL EDUCATION

366-408

2 Cr.

Class organization and methods of teaching physical education. Participation with actual classes through required freshman program.



## HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION

366-420

3 Cr.

Physical education from ancient to modern times with relationship to the social situation. Biological, sociological and psychological foundations of physical education.

## MEN (67)

All men students are required to take 2 credits in Physical Education during their freshman year; one-half credit must be in swimming. If an excuse or deferment from Physical Education is necessary for health reasons, the students must report to the college Health Service for temporary or permanent excuse. Permanent excuses are to be filed in the Office of the Registrar as well as in the Office of Physical Education.

If a student, on his first entrance at Stout, requests exemption from the physical education program, such requests must be made to the Vice-President for Academic Affairs. Students who have been exempt from physical education for any reason must make up that credit or credits.

## PHYSICAL EDUCATION

367-127

1 Cr.

One activity each quarter is to be selected from the following offerings: Apparatus, badminton and tennis, basketball and speedball, bowling, social dance (co-ed), swimming, (non-swimmers, swimmers, or pre-instructor's and instructor's course), tumbling, volleyball, weight training, wrestling. Quarter 2, 3.

Archery, bowling, golf, softball, and track, swimming (non-swimmers, swimmers, or pre-instructor's and instructor's course). Quarter 1, 4.

## PRINCIPLES OF PHYSICAL EDUCATION

367-150

2 Cr.

The principles of physical education based on scientific facts and expression of educational ideals. Aims and objectives of physical education as applied to various school levels.

## GYMNASTICS

367-220

2 Cr.

Elements of gymnastic tumbling and the use of gymnastic apparatus as a part of a modern program of physical education.

## ATHLETIC TRAINING AND CONDITIONING

367-250

2 Cr.

To provide the student who is considering entering into the field of Physical Education and/or coaching, a basic understanding of the prevention, treatment and care of athletic injuries.

## RECREATIONAL LEADERSHIP

367-325

2 Cr.

Objectives, principles, methods, and content of a recreational program. Problems of facilities, equipment, and leadership. Organization and administration of a recreational program for various age levels.

**INDIVIDUAL AND DUAL SPORTS**

367-350

2 Cr.

History and theories of play. Rules and regulations of individual and dual sports. Badminton, tennis, table tennis, bowling, golf, archery, horseshoes, and practice of the various skills.

**ORGANIZATION AND ADMINISTRATION OF  
PHYSICAL EDUCATION**

367-450

2 Cr.

The problems that arise in everyday experience of the instructor in physical education. The relationship of physical education to general education; objectives of physical education, utilization, planning and care of facilities and equipment; time allotment, classification of activities and children, leadership, organization, supervision, routine procedures.

**TEAM SPORTS**

367-455

2 Cr.

Fundamentals and teaching knowledge of the following sports: touch football, soccer, softball, speedball, volleyball, basketball, hockey, and games leading up to team sports.

**COACHING BASKETBALL AND FOOTBALL**

367-460

2 Cr.

Fundamentals and methods of teaching and coaching football and basketball. Specified techniques analyzed. Definite plan of offense and defense presented. Rules, practice schedules, fundamentals, theories, and their application.

**COACHING BASEBALL AND TRACK**

367-470

2 Cr.

Fundamentals and methods of teaching and coaching baseball and track. Specific techniques analyzed. Definite plan of offense and defense presented. Rules, practice schedules, fundamentals, theories, and their application.

**INTRAMURAL ATHLETICS**

A complete program of all seasonal sports consisting of an "Athletics for All" aim is available to all students. Organized tournaments are conducted during the year in archery, badminton, basketball, bowling, golf, horseshoes, softball, swimming, table tennis, touch football, tennis, wrestling, volleyball, and track. Varsity letter winners are not eligible to participate in the sport in which they have lettered. The facilities and equipment of the Department of Physical Education are available to students for recreation when there are no scheduled activities.

## WOMEN (68)

One year (4 quarters with a total of 2 credits) of physical education is required of all women students during their freshman year. One quarter of swimming must be included within the four quarters. Any student possessing a current American Red Cross certificate labeled Swimmers, Senior Life Saving or Water Safety Instructor, or capable of passing the American Red Cross swimmers test may meet the requirement. The other three quarters may be selected from any of the other offerings.

Students are encouraged to elect additional classes during their sophomore, junior, and senior years. These may be selected from the 368-128 offerings, or preferably from among the other more concentrated offerings.

Transfer students must abide by the above requirements. Credits are extended on the basis of the student's transcript. Entering students over 21 years of age (at date of entrance) may be exempt from physical education requirements.

If an excuse or deferment from physical education is necessary for health reasons, the student must report to the college Health Service for a permanent or temporary excuse. Permanent excuses must be filed in the Registrar's Office as well as in the Office of Physical Education.

### PHYSICAL EDUCATION

368-128

1 Cr.

One activity each quarter is to be selected from the following offerings: basketball, bowling, gymnastics, modern dance, movement fundamentals, riding, social dance, swimming (non-swimmers, advanced beginning, intermediate, swimmers, or water safety instructor). Quarter 2, 3. Archery, golf, movement fundamentals, riding, softball, swimming (non-swimmers, advanced beginning, intermediate, swimmers, or senior life saving), tennis. Quarter 1, 4.

### GYMNASTICS

368-215

2 Cr.

Skills and methods in tumbling, apparatus and conditioning.

### INDIVIDUAL AND DUAL SPORTS

368-225

2 Cr.

Skills, rules and teaching methods in track and field, bowling, badminton and recreational games.

### INDIVIDUAL AND DUAL SPORTS

368-226

2 Cr.

Skills, rules and teaching methods in archery, tennis and golf.

### RHYTHMICAL ACTIVITIES

368-235

2 Cr.

A teaching methods course in the fields of rhythms—modern, folk, square and social dance.

## TEAM SPORTS

368-245

2 Cr.

Skills, rules and teaching methods in field sports, basketball, volleyball and softball.

## OFFICIATING

368-345

1 Cr.

Designed to give interested persons an opportunity to practice officiating team sports. Prerequisite: Team sports or consent of instructor.

## ELEMENTARY SCHOOL PHYSICAL EDUCATION

368-360

2 Cr.

Methods and materials for teaching physical education in the elementary school.

## METHODS OF TEACHING PHYSICAL EDUCATION

368-408

2 Cr.

Class organization and methods of teaching physical education. Participation with actual classes through the required freshman program.

## RECREATION

At the present time the Women's Recreation Association is operating two types of programs. The first is an intramural program for all interested women students living on and off campus. The sports areas included are tennis, volleyball, basketball, badminton, and softball. In addition to these sports the swimming pool is available for the women students on one or two designated evenings each week.

The second program under the control of WRA at this time is one involving intercollegiate competition in sports for women. Stout is a member of the Wisconsin Athletic and Recreation Federation of College Women and presently has competition in their events in swimming, gymnastics, volleyball, basketball, track and field, softball, and badminton.

The modern dance group also operates under WRA. They present performances both on and off campus.

An outstanding member of the intercollegiate program of the WRA is chosen for the Irene Erdlitz award at the end of the school year.

## PHYSICS (72)

## PHYSICS I

372-221

5 Cr.

General laws of physics in the fields of electricity, mechanics, and heat. Laboratory problems and demonstration. Prerequisite: 355-121.

## PHYSICS II

372-223

3 Cr.

General laws of physics in the fields of sound and light. Acoustics, vision, lighting standards, lenses, optical instruments, polarization, and fluorescence. Prerequisite: 372-221.

## PHYSICS — STRENGTH OF MATERIALS

372-225

3 Cr.

Fundamental theory of strength of materials. Analysis of tension, compression, shear, biaxial tension and compression, torsion, stresses and deflection of beams, statically indeterminate beams, and theory of columns. Prerequisite: 372-221.

## PHYSICS — ELECTRONICS

372-327

3 Cr.

Theory and application of semi-conductors, vacuum and gas tubes. Basic principles of electronic circuits. Prerequisites: 355-153, 372-221, 124-310 or 124-322.

## PHYSICS — MODERN PHYSICS

372-329

3 Cr.

Elements of atomic and nuclear physics and the industrial application of atomic energy. Prerequisites: 372-223, 355-153.

## PHYSICS — MECHANICS I

372-331

3 Cr.

Essential elements of statics including simple force system, theory and application of non-concurrent forces, couples, friction, non-coplanar forces, trusses and other structures. Prerequisites: 372-221, 355-153.

## PHYSICS — MECHANICS II

372-333

3 Cr.

Essential elements of dynamics including rectilinear, angular, and harmonic motions; forces producing motion, work energy, acceleration, impulse and momentum. Prerequisites: 372-221, 355-153.

## PHYSICS — OPTICS

372-435

3 Cr.

Geometrical and physical optics. Optical instruments, spectrum analysis, diffraction, interference, polarization and lasers. Prerequisites: 372-223, 355-154.

## ELECTRICITY AND MAGNETISM

372-437

3 Cr.

The properties of electric and magnetic fields in free space and in material media. Prerequisites: 372-221 and 355-157 or 355-154.

## FLUID MECHANICS

372-441

3 Cr.

The basic properties of fluids in motion are developed for both compressible and incompressible fluids. The equations of fluid flow are developed and solved for both rotational and irrotational flows. Prerequisites: 372-433, 355-154.

## POLITICAL SCIENCE (75)

### GOVERNMENT

375-311 3 Cr.  
Functioning of governmental units in the U.S.A. Political principles, processes, problems; constitutional principles. Comparison of selected foreign governments.

### STATE AND LOCAL GOVERNMENT

375-312 3 Cr.  
State and local governments within the U.S. federal system. Prerequisite: 375-311 recommended.

### AMERICAN POLITICS

375-417 2 Cr.  
Analysis of modern political parties. Nominating methods, campaigns, elections, practical politics in legislative bodies; machines and bosses. Prerequisite: 375-311.

### CIVIL LIBERTIES IN THE UNITED STATES

375-420 3 Cr.  
The constitutional basis of the rights of minority groups; emergent trends in voting rights; free speech, freedom of religion, censorship, rights of defendants, and limitations of dissent. Prerequisites: 375-311 or Junior standing and by consent of instructor.

### PROBLEMS OF AMERICAN FOREIGN POLICY

375-430 3 Cr.  
Descriptive analysis of the way American foreign policy is formulated by federal agencies; persistent problems in national security and international stability. Prerequisites: 375-311 or Junior standing and by consent of instructor.

### INTRODUCTION TO COMPARATIVE GOVERNMENT

375-440 3 Cr.  
Political institutions of major foreign nations, stressing comparison of basic principles and techniques with those of the United States; survey of political institutions of underdeveloped areas. Prerequisites: 375-311 or Junior standing and by consent of instructor.

## SOCIOLOGY AND SOCIAL WORK (87)

### GENERAL SOCIOLOGY

387-110 3 Cr.  
Social interaction in human groups. Relationships between the individual and the group; basic institutions; social change and current trends.

### INTRODUCTION TO SOCIAL WORK

387-302 3 Cr.  
The field of social work as a profession; history and philosophy of social services; basic information for teachers, counselors, and those interested in the profession. Prerequisites: 387-110 and 387-411.

## SOCIOLOGY OF THE FAMILY

387-315

3 Cr.

The family as an institution. History; variations in other cultures; relationship to other institutions. Interactions of members in various stages of the life cycle. Prerequisite: 387-110.

## SOCIAL PSYCHOLOGY

387-350

3 Cr.

The theory of social interaction and its applications with special emphasis on communication. Prerequisite: 387-110.

## PROBLEMS OF AMERICAN SOCIETY

387-411

2 Cr.

Sociological perspective on selected social problems. Prerequisite: 387-110.

## SOCIOLOGY OF LEISURE

387-425

3 Cr.

An institutional approach to the effects of leisure on social structure; the values reflected in leisure; problems attending the increase in leisure resources. Prerequisite: 387-110.

## SOCIOLOGY OF THE COMMUNITY

387-430

3 Cr.

Structure of the community, chiefly in the U.S. Variability and current trends; research techniques; community development. Prerequisite: 387-110.

## SOCIOLOGY OF WORK

387-440

3 Cr.

Human behavior in various types of employment and occupations; trends in the occupational structure of the United States. Prerequisite: 387-110.

## JUVENILE DELINQUENCY

387-460

3 Cr.

Definitions and trends of deviant behavior among youth; research findings; efforts toward prevention, control, and treatment. Prerequisite: 387-110.

## SOCIOLOGY OF MINORITY GROUPS

387-475

3 Cr.

Social-psychological aspects of the interaction between majority and minority groups; trends of minorities in the United States. Prerequisite: 387-110.

## SOCIOLOGICAL THEORY

387-490

3 Cr.

Contributions of major social theorists; chief components of contemporary general sociological theory. Prerequisite: 387-110.



## SPEECH (91)

### FORENSICS

391-101, 102, 103, 104

1 Cr. per year

Training in speech through participation in intercollegiate forensics, including oral interpretation, oratory, extempore speaking, after-dinner speaking, debate, discussion, and preparation of speech programs.

### FUNDAMENTALS OF SPEECH

391-106

2 Cr.

Techniques of effective speech based upon diagnosis of individual needs and training for the improvement of the necessary skills. Emphasis on speaker-listener relations, speech organization, voice, bodily action, language, and the development of confidence and poise.

### SPEECH FOR INTERNATIONAL STUDENTS

391-110

1 Cr.

Practical experience in communicating in various situations. Individual and group attention to speaking and listening through the use of phonetics and tape recordings. Length of course varies with individual progress.

### INTRODUCTION TO THEATRE

391-200

3 Cr.

Development of the theatre from ancient times to the present. Emphasis on play styles, production methods, and audience appreciation; including reading of representative plays.

### ESSENTIALS OF PUBLIC SPEAKING

391-223

2 Cr.

Advanced techniques of speaking. Development of proficiency in audience analysis, speech composition, and delivery of various types of speeches. Prerequisite: 391-106.

### RADIO PROGRAMMING AND PRODUCTION

391-250

3 Cr.

Planning, writing, and producing various types of radio programs. Programs may be broadcast from University radio station. Prerequisite: 391-106.

### ADVANCED SPEECH ACTIVITIES

391-320

2 Cr.

Individual and group activities for developing skill in a variety of speech situations. Projects in analysis and delivery of literature. Special consideration of individual problems. Prerequisite: 391-106.

### TECHNIQUES OF GROUP LEADERSHIP

391-322

2 Cr.

Techniques for presiding at various meetings through use of parliamentary law. Training in the art of persuasion as a means of motivating and guiding the behavior of others. Prerequisite: 391-106.

## DISCUSSION AND DEBATE

391-325

2 Cr.

Principles and techniques of discussion and debate: Leading and participating in the symposium, panel roundtable, and other discussion forms; preparing and presenting debates on current problems. Prerequisite: 391-106.

## CONTEMPORARY THEATRE

391-340

2 Cr.

Analysis of selected plays including structure, dramatic content, and production methods. Field trips to current plays. Prerequisite: 391-106.

## THEATRE WORKSHOP

391-344

1 Cr.

Practical experience in directing, acting, and/or stagecraft through participation in university theatre productions. Prerequisite: 391-106.

## THEATRE WORKSHOP

391-345

1 Cr.

Continuation of Speech 344. Further experience in some phase of play production in university plays. Prerequisite: 391-344.

## SPEECH SKILLS FOR BUSINESS AND INDUSTRY

391-405

2 Cr.

Training in technical speaking; projects emphasizing the application of speech skills and activities in business and industry. Prerequisites: 391-106 and junior standing.

## SPEECH SKILLS FOR EDUCATORS

391-406

2 Cr.

Application of leadership techniques and speech skills in classroom and educational activities. Prerequisites: 391-106 and junior standing.

## PLAY PRODUCTION

391-444

2 Cr.

Directing and staging of plays: Selecting, rehearsing, and acting techniques. Prerequisite: 391-106.

## STAGECRAFT AND SCENE DESIGN

391-445

2 Cr.

Technical problems in producing plays: Designing the set; constructing, painting, and handling scenery; stage lighting; make-up; costuming; sound and visual effects; and organization of the production staff.

## INTRODUCTION TO SPEECH CORRECTION

391-450

2 Cr.

The nature, causes, and methods of correcting voice and articulation defects. Prerequisite: 391-106.

TELEVISION PROGRAMMING AND PERFORMANCE

391-470

3 Cr.

Planning, writing, and performing in instructional, public service, special feature, or dramatic television programs. Programs will be produced in cooperation with students in 107-493, Television Production Techniques. Prerequisite: 391-106.

DIRECTION OF SPEECH ACTIVITIES

391-475

2 Cr.

Organization, administration, procedures, and judging of speech activities such as plays, oratory, interpretation, public speaking, discussion and debate. Prerequisite: 391-106.



## SCHOOL OF EDUCATION (4)

JOHN B. STEVENSON, PH.D., DEAN

Departments: Education (21)  
Vocational Rehabilitation (59)  
Psychology (79)

### EDUCATION — PROFESSIONAL TEACHER EDUCATION (4)

To qualify for teacher education, students must meet a number of pre-admission requirements. Official entry to teacher education generally occurs the first or second semester of the junior year even though students may have enrolled in education courses as freshmen or sophomores in some programs.

Pre-admission requirements are: A grade point average of 2.25, which must be maintained through the senior year.

Students must have approval from the Health Department. If a physical examination blank signed by a physician is properly filled out

and on record in the office of the Health Department, and no known health problems exist, this approval is automatically provided by the school nurse who sends a signed form to the Dean of Student Affairs. Individuals facing special and temporary problems in health may apply for admission to the Student Personnel Committee for Teacher Education.

Students wishing to qualify for teacher education must show proficiency in English by earning a "C" in the last course in English Composition or having a transfer record of "C" in such a course from another accredited college or university. If a deficiency exists, a student may elect to do remedial work in English to earn a "C" in the final examination of 102, or earn a qualifying score on the Cooperative English Test administered by the University Counseling Center.

Students entering teacher education must also present evidence of speech proficiency. All students are rated in: the first required speech course as to their proficiency. Those rated as unsatisfactory may enroll in the non-credit evaluation program or take a second speech course (391-223, 391-320, 391-325, or 391-406) to attempt to achieve proficiency.

Complete curricula in teacher education are found under American Industry, Art Education, Distributive Education, Home Economics Education, Industrial Education, Early Childhood Education, Vocational Education, and Technical Education. (Department numbers in this section reflect the subject matter area.)

#### INTRODUCTION TO TEACHING ART IN THE ELEMENTARY SCHOOLS

405-302

3 Cr.

Development of basic knowledge and skills needed to foster and extend creative growth in children.

#### INTRODUCTION TO TEACHING ART IN THE SECONDARY SCHOOLS

405-307

3 Cr.

Development of Art principles and practices that expand creative growth and development in secondary school students.

#### STUDENT TEACHING

405-408 Quarter

8 Cr.

Directed teaching and community experiences in selected off-campus schools. Prerequisites: 405-302 and 405-307.

#### CURRICULUM DEVELOPMENT FOR ART

405-434

2 Cr.

A study of the needs and methods used in developing a sequential K-12 art curriculum.

#### FILM: HISTORY AND APPRECIATION

407-435

3 Cr.

Traces the evolution of the motion picture film as a medium of mass communication and aesthetic expression; contributions of noted film producers are identified.

**FUNDAMENTALS OF MOTION PICTURE PRODUCTION**

407-436

2 Cr.

Fundamentals of instructional motion picture production applied to individual student films. Production planning, visual continuity, shooting, animation, editing, sound recording, titling and other technical problems of production.

**ADVANCED MOTION PICTURE PRODUCTION**

407-439

2 Cr.

Production of instructional sound motion picture utilizing "live" projects which will be marketed. Production planning, content research, treatments, storyboard, script writing, shooting, editing, sound recording, titling, and other technical problems of production. Prerequisite: 407-436.

**AUDIO-VISUAL COMMUNICATION**

407-460

2 Cr.

Methods of selecting and using audio-visual materials effectively in teaching. Experience in operating equipment, basic techniques of media preparation, practice in planning and presenting a lesson.

**PREPARATION OF AUDIO VISUAL MATERIALS**

407-461

2 Cr.

The planning and production of opaque materials, charts, graphs, posters, transparencies, bulletin boards, displays, models, mock-ups, specimens, script writing, chalkboard aids, and recording techniques. Prerequisite: 407-460.

**TELEVISION PRODUCTION TECHNIQUES**

407-493

3 Cr.

Production of television programs in cooperation with students in 391-470, Television Programming and Performance. Each student will gain experience as director, technical director, cameraman, floor manager, audio controlman, telecine operator, and lighting director. Includes related technical information.

**INSTRUCTIONAL COMMUNICATIONS SYSTEMS**

407-494

2 Cr.

Application of electronic communication systems used to solve educational problems. Emphasis on audio systems including microphones, tape decks, and duplicators, paging systems, language labs and intercommunication equipment; multi-media systems including information retrieval, multiple response, and simulators. Prerequisite: 407-460.

**INTRODUCTION TO TEACHING — DISTRIBUTIVE EDUCATION**

416-304

3 Cr.

A methods course correlated with guided experiences involving directed observation and gradual assumption of teaching responsibilities in local schools. Includes the development of lesson plans and teaching aids. Prerequisites: 421-222, 479-303, overall grade point average—2.25.

## CURRICULUM DEVELOPMENT — DISTRIBUTIVE EDUCATION

416-404 Quarter

5 Cr.

Development of an orderly procedure for the identification of concepts, generalizations and instructional units to be used in teaching. Course outlines; analysis of content; lesson planning; evaluation; management. Prerequisites: 416-304, overall grade point average—2.25.

## STUDENT TEACHING DISTRIBUTIVE EDUCATION

416-408 Quarter

8 Cr.

Directed teaching and community experiences in selected off-campus schools. Prerequisites: 416-404, 416-304.

## INTERN TEACHING DISTRIBUTIVE EDUCATION

416-488

8 Cr.

An alternate method of obtaining student teaching experience on both the high school and post high school levels. Teacher interns receive a license to teach and salaried appointments in cooperating school systems for one full semester.

## EDUCATION (21)

## PRINCIPLES OF SECONDARY EDUCATION

421-222

2 Cr.

The evolution, status, and trends of secondary education. Needs of our democratic society; philosophy, organizational problems, curriculum development, and the responsibilities of the individual teacher. Prerequisite: 479-123.

## INTRODUCTION TO GUIDANCE AND COUNSELING

421-401 Quarter

2 Cr.

An overview of policies and practices of organized guidance programs for schools and colleges. Emphasis is given to the philosophy and evaluation of guidance, understanding the individual, counseling, and group guidance as it affects the classroom teacher and personnel worker.

## HISTORY OF EDUCATION

421-405

2 Cr.

Elementary, secondary and higher education in the U.S. from the early colonial period to the present time.

## GUIDANCE IN THE ELEMENTARY SCHOOL

421-429 Quarter

2 Cr.

The nature and conditions of guidance in the elementary school. Curricular and non-curricular guidance techniques, referrals, and parent counseling. Recommended principles and practices in guidance applied to the elementary school child.

## EDUCATION EVALUATION

421-441 Quarter

2 Cr.

Types of tests and test questions; the interpretation of test scores and grades by means of simple statistical procedures; methods of grading manipulative work and assigning final grades.



## CONFERENCE LEADING

421-470

2 Cr.

Study of teaching. Study and practice of the principles and techniques of conference leading as an instructional device in vocational education. Prerequisite: 449-304, 442-304 or equivalent.

## PUBLIC RELATIONS

421-479

2 Cr.

Defines the public, objectives, and media of public relations in industry and education. Provides practice with such tools as news stories and features. Each student carries out an actual publicity program in the community.

## AMERICAN HIGHER EDUCATION

421-481

2 Cr.

An introduction to the ramifications of the American system of higher education including history, philosophy, administration, curriculum, students, teachers, and demands for employment. Undergraduates by permission of the instructor only.

## PERSONAL LEARNING EXPERIENCE

421-495

3 Cr.

An experimental course for juniors and seniors. By permission only. Each student selects the learning experience he wishes to pursue. May be individual or group experience. Group meets with sponsor from time to time when requested by the students. Self-evaluation paper by each student is the only requirement. Learning experiences, both individual and group, organized and directed entirely by the students. Prerequisites: Junior and senior. By permission.

NOTE: Courses 442-304 through 442-488 can be found under Home Economics Teacher Education in the School of Home Economics section.

NOTE: Courses 449-160 through 449-488 can be found under Industrial Teacher Education in the School of Applied Science and Technology section.

## EDUCATION — PROFESSIONAL TEACHER EDUCATION — AMERICAN INDUSTRY

## PROFESSIONAL TEACHER EDUCATION

401-205A, 205B, 205C, 205D, 205E, 205F

2 Cr.

A continuing seminar and teaching laboratory. Provides substantive information and guidance for the developing teacher. Development of the teacher role and controlled practice in teaching. Prerequisite: Enrollment in American Industry curriculum, dual major or by consent of American Industry staff.

## STUDENT TEACHING

449-408

Directed teaching and community experiences in selected off-campus schools. Prerequisites: 401-205A, 205B, 205C, 205D, 205E.

## VOCATIONAL REHABILITATION (59)

## INTRODUCTION TO VOCATIONAL REHABILITATION

459-201

3 Cr.

An introduction to serving handicapped and disadvantaged persons. Philosophy, history, techniques, careers of vocational rehabilitation.

## COMMUNITY RESOURCES

459-301

2 Cr.

A review of community resources and their respective role in rehabilitation.

## GROUP WORK WITH THE HANDICAPPED

459-302

2 Cr.

Dynamics of group behavior and survey of group procedures for modifying behavior of handicapped and disadvantaged persons.

## VOCATIONAL EVALUATION METHODOLOGIES

459-401

4 Cr.

Review of techniques of assessing the vocational strengths and weaknesses of persons through the utilization of work as the tool for evaluation.

## PLACEMENT AND TRAINING THE HANDICAPPED

459-402

2 Cr.

A study of the various techniques used in placing handicapped people, the development of placement and training sources, development of on-the-job training programs, development of in-plant training stations modified for the handicapped.

## PHYSICAL DISABILITY AND WORK

459-403

3 Cr.

Etiology, diagnosis, treatment, prognosis, and vocational implications of physical disabilities.

## VOCATIONAL EDUCATION (69)

## PRINCIPLES OF VOCATIONAL, TECHNICAL, AND ADULT EDUCATION

469-402

2 Cr.

Philosophy, organization and administration of vocational and adult education in the nation with special attention given to the Wisconsin program.

## COOPERATIVE OCCUPATIONAL EDUCATION PROGRAMS

469-460

2 Cr.

Philosophy, organization, coordination and teaching techniques of cooperative education programs in the various vocational areas. Roles, responsibilities and duties of the cooperative teacher coordinator.

## ADULT EDUCATION

469-474

2 Cr.

Philosophy and history of adult education movement in the United States. Technique of teaching adults including psychological factors, methods, adult interests and characteristics. Prerequisite: Graduate standing or advanced undergraduate standing with teaching experience.

NOTE: Courses 477-204 through 477-488 can be found under Child Development and Family Life in the School of Home Economics section.

## PSYCHOLOGY (79)

## GENERAL PSYCHOLOGY

479-123

3 Cr.

Introduction to the study of psychology. The science and art of understanding human behavior. Topics: motivation, emotion, learning, thinking, personality development, analysis of individual behavior and application of psychology.

## PERSONALITY AND MENTAL HEALTH

479-214

3 Cr.

Preventing the development of problems in adjustment with training in early recognition. Applying positive principles of mental hygiene. Factors that contribute either to a normal personality or to maladjustment.

## EXPERIMENTAL PSYCHOLOGY

479-263

3 Cr.

Performance of some of the simpler experiments together with a study of the more important investigations. The presentation of quantitative data and the interpretation of their larger significance. Individual and group experiments in perception, sensation, reflex action, emotion and learning.

## EDUCATIONAL PSYCHOLOGY

479-303

2 Cr.

Introduction to the psychological aspects of the educative processes. Emphasis on application of basic psychological principles to teaching. Focus on learner, learning process, and the teacher as an agent for change. Prerequisite: 479-123.

## THE PSYCHOLOGY OF MARRIAGE AND THE FAMILY

479-326

2 Cr.

A study of the interpersonal relations involved in dating, mating, and family collaboration with growing awareness of patterns for self-integration.

**ADOLESCENT PSYCHOLOGY**

479-350

3 Cr.

The physical, emotional, social, moral, and intellectual development of secondary school youth. Prerequisite: 479-123.

**CHILD PSYCHOLOGY**

479-352

3 Cr.

Psychological development of children. Emphasis on age groups spanning the pre-school and the pre-pubescent child; methods for scientific measurement and understanding of child behavior. Prerequisite: 479-123.

**DIFFERENTIAL PSYCHOLOGY**

479-358

3 Cr.

Nature and extent of differences in individuals and groups. Intelligence, achievement, aptitudes, interests, attitudes, and general personality. Race, sex, nationality, social class and age in relation to individual differences.

**PSYCHOLOGY OF LEARNING**

479-366

3 Cr.

A course designed to acquaint the student with the principles of learning drawn from experimental and theoretical psychology. These principles will be demonstrated as they apply to animal and human learning. Modern viewpoints toward theories of learning will be emphasized.

**INDUSTRIAL PSYCHOLOGY**

479-430

2 Cr.

Use of psychological methods in personnel management in industry. Emphasis is on personnel policy formation and techniques in placement, interviewing, efficiency, job evaluation and training, merit rating, morale, and safety. Prerequisite: 479-123.

**ABNORMAL PSYCHOLOGY**

479-431

3 Cr.

A study of more serious mental disturbances. Emphasis on the growing importance of mental disorders and on their early detection and referral.

**PSYCHOLOGY OF THE EXCEPTIONAL CHILD**

479-432

2 Cr.

Guidance of the learning and development of children who deviate from the normal, the mentally retarded, gifted, socially and emotionally disturbed, and those with visual, speech and orthopedic problems.

**PERSONNEL MANAGEMENT**

479-435

3 Cr.

Organization and coordination of personnel practices and methods. Consideration given to communication, employment, orientation and training, working conditions, supervision, performance evaluation, collective bargaining, salary administration, health and recreation.

**HUMAN RELATIONS IN THE COMMUNITY**

479-455

2 Cr.

Consideration of the social, psychological, medical, physical, spiritual and interpersonal aspects of growing into responsible adulthood. (Summer Session only).

**COUNSELING THEORY**

479-475 Quarter

2 Cr.

Psychological study of the interview. Consideration given to various interview objectives, point of reference, kinds of questions, and the improvement of techniques for various purposes of the teacher and counselor. Prerequisites: 421-401 or 421-429 or 212-264, and senior or graduate standing.

**APTITUDE AND ACHIEVEMENT APPRAISAL**

479-490 Quarter

2 Cr.

Selection, interpretation, and use of tests and inventories for teachers and counselors. Study of achievement, aptitude, interest and personality tests with experience in the interpretation of results. Prerequisites: 421-401 or 421-429 or 212-264 and senior status.

**PSYCHOLOGY OF CAREERS**

479-491

2 Cr.

A study of the psychology of work including career development, the meaning of work, job satisfaction and factors in career choice. Prerequisites: 421-401 and senior or graduate standing.



## STUDENT SERVICES

Housing and Food Service

Motor Vehicle Registration

Attendance and Military Obligations

Financial Aids Available

Fall Orientation

Advisement

Veterans' Service

Placement

Student Activities



## STUDENT SERVICES

Student Services embraces all of the organized efforts, other than classroom instruction, that are designed to make student life an experience which is social as well as individual, and personal as well as intellectual. It attempts to apply education to all areas of living.

### HOUSING AND FOOD SERVICE

University regulations require freshman and sophomore students to reside in the residence halls, providing accommodations are available. Exceptions are made for veterans, students 21 years of age and older at the time of registration, married students and students living at home or the home of an immediate relative. All students living in University-listed housing are subject to both University regulations relative to off-campus housing, and to the written house rules of the homeowner.

Upperclass students who wish to room in off-campus housing may select accommodations from the listed housing maintained in the Student Housing Office.

Residence hall contracts are for the entire academic year. Off-campus housing contracts are for the semester or as agreed by student and landlord. In the absence of the written contract for off-campus housing, the period of residency will be for the duration of the semester.

The required housing deposit will reserve a room in one of the residence halls and will be applied against the final payment for the second semester of the academic year. The housing deposit will not be refunded if cancellation is received after July 15.

If a room is vacated prior to the end of the period of contract, the following refund policy will apply:

- (1) Students who voluntarily withdraw shall be refunded room and board paid in advance on a weekly, prorated basis. In all cases, the refund begins on the Monday of the week following withdrawal. Students withdrawing voluntarily shall forfeit the \$50 deposit.
- (2) Students who withdraw for military service or are suspended by the school shall be refunded room and board paid in advance on a weekly, prorated basis including the deposit less any assessment of residence hall damage claims.

Stout State University strives to make residence hall living a meaningful part of the entire social and academic educational process. When living in a residence hall, a student is able to fully participate in a university atmosphere. A professionally trained staff is present to help the student achieve academic and social goals. A wide variety of social, educational, and recreational activities provide the residents with an opportunity to identify with and become a part of Stout State University. The University will provide residence hall accommodations for approximately 2820 students for the fall of 1969. Two residence hall areas are located on the campus. The north residence hall complex, composed of Jeter-Tainter-Callahan Hall, Fleming Hall, and Hovlid Hall, accommodates approximately 700 students. Students of this complex receive their

meals in the Tainter Food Service which is located in Jeter-Tainter-Callahan Hall. This dining hall overlooks beautiful Lake Menomin. The south residence hall complex, composed of Antrim-Froggatt-McCalmont Hall, Curran-Kranzusch-Tustison Hall, Hansen-Keith-Milnes Hall, North Hall and South Hall, accommodates approximately 2120 students. This complex has a separate food service facility for meal service.

Students residing in residence halls are required to contract for their meals in the food service facilities as provided. The meal contract plan provides for 21 meals per week.

Students who have arranged for residence hall accommodations will be notified during the month of August as to when the halls will be available for check in. All rooms are assigned for the entire academic year. Each room is furnished with 2 single beds and inner-spring mattresses, pillows, dressers, student desks, chairs, study lamps, and bookcases. Sheets, pillow cases, drapes, and bedspreads are supplied. Students are requested not to bring additional furniture. Radios and stereos are permitted in the student rooms. Television sets are available for general use in the main lounge of each building.

At the present time, Stout State University has approximately 60 married-student units. These are barracks-type units with two bedrooms, a bath, a kitchen alcove, a living room and limited storage space. Married-student facilities are also available in the community of Menomonie.

Inquiries for student housing should be directed to the Director of Student Housing, Stout State University.

## REGULATIONS CONCERNING MOTOR VEHICLES

Motor vehicles are to be brought to the campus by students only in cases where a real need exists for such transportation. All students are required to register their vehicles in accordance with the existing University policies. As parking facilities on or near the campus are very limited, students who expect to use University owned or controlled parking lots must register their vehicles and observe the regulations issued by the University Security Office.

## COLLEGE ATTENDANCE AND MILITARY OBLIGATIONS

Men registered with the Selective Service System must keep their local boards informed of their student status if they wish to request a student deferment. The Registrar's Office has the required forms for requesting such a deferment. It is the student's responsibility to initiate the form.

Menomonie maintains a unit of the Wisconsin National Guard. Many students attending Stout belong to this unit.

It is possible for a man who joins a national guard unit and who then attends that unit's drills to be exempt from the selective service. A student who belongs to another guard unit within Wisconsin can continue his drill in Menomonie and still maintain the military status which he had while at home. Persons in national guard units in other states can make somewhat similar arrangements.

## THE FINANCIAL AIDS PROGRAM

Financial aids are awarded to students who without such aid would be unable to attend Stout State University. Applications for financial assistance are based upon the applicant's need, scholastic promise and qualities of leadership. Financial aids are awarded by the University Financial Aids Committee.

### HOW TO APPLY FOR FINANCIAL AIDS

Students can obtain the appropriate financial aids form by writing to the Director of Financial Aids. The following guide-lines govern the awarding of financial aids:

1. Students may request financial aid only after they are fully accepted by the Admissions Department.
2. Scholarship applications should be received prior to March 1.
3. Most financial assistance is awarded by the semester or by the academic year.
4. Awardees of financial assistance (scholarships, loans and part-time employment) are required to make a new application each year if financial aid is desired.

### THE NATIONAL DEFENSE STUDENT LOAN FUND

To be eligible for a National Defense Student Loan a student must:

1. Be accepted or enrolled at Stout
2. Be in need of financial assistance
3. Maintain a cumulative grade point average of 2.25 or rank in the upper 40% of their high school graduating class.

Eligible students may be granted up to \$1,000 for each year while attending Stout. The amount of the loan is determined by the availability of funds and the student's financial need.

Repayment must be completed within a ten-year period at an interest rate of 3% per annum, to begin nine months after the borrower ceases to be a student. Up to 50% of a loan (plus interest) will be forgiven if the borrower becomes a full-time professional teacher. Teacher cancellation is to be at the rate of 10% a year up to five years. Cancellation of a loan at the rate of 15% per year, plus interest, without restriction as to the amount which may be finally cancelled, is granted to a teacher who teaches in a school with a high concentration of students from low-income families or a teacher of the handicapped.

### WISCONSIN STATE STUDENT LOAN FUND

The Wisconsin State Student Loan is available to students:

1. Who are residents of Wisconsin.
2. Who are in need of loan assistance.
3. Who have a minimum high school grade average of "C".

There is no interest charged while in attendance at Stout, and a 7% rate of interest begins nine months after the individual ceases to be a student at Stout.

The maximum amount of this loan for an academic year is \$1,000.00 and \$250.00 for the summer session.

### THE STOUT STATE UNIVERSITY LOAN FUND

This loan fund is a non-profit organization that is supported by funds received from alumni, student organizations, faculty, civic leaders, Menomonie area businessmen and the Stout State University Foundation, Inc. This loan fund is available for short-term emergency loans to students for education expenses only. The maximum amount loaned is \$100.00 and the full repayment should be completed within 90 days.

### U.S. WORK-STUDY PROGRAM

Value: Students are compensated through an hourly wage rate as determined by the institution. Eligibility: United States citizens or residents of Trust territories in good standing at Stout State University who show financial need may be offered such positions. Terms: Students may be employed an average of 15 hours per week while classes are in session and up to 40 hours per week during vacation periods.

### ON-CAMPUS EMPLOYMENT

Varied competences are required by academic departments, maintenance departments, food services, recreational center, and other campus agencies. Students are placed with regard to their skills and ability to fulfill these requests.

### UNITED STATES EDUCATIONAL OPPORTUNITY GRANTS

Value: \$200-\$1,000, may not exceed 50% of student's assessed need. This grant must be matched by other institutional funds. Eligibility: Exceptionally needy students, as defined by federal regulations, who are United States citizens or residents of Trust Territories. Initial awards are usually restricted to entering freshmen. Duration: As long as the recipient is permitted to continue in the institution he is assured of this program based on a need analysis annually. (Maximum duration, 8 semesters.)

### GUARANTEED LOAN PROGRAM

Interested students may inquire through local banks, university financial aids offices or the state Higher Education Aids Board (115 W. Wilson St., Madison 53702) about federally guaranteed loans. For recipients whose families have adjusted gross family income under \$15,000 yearly, the 7% interest is paid by the federal government until the student leaves school, then the recipient pays the interest during repayment period of up to 10 years. If adjusted gross family income is over \$15,000 there is no federal interest subsidy.

### OFF-CAMPUS EMPLOYMENT

A number of job opportunities are available to students by Menomonie area employers. Academically promising students who meet the specific job requirements of an employer are referred to the employer for a personal interview.

## LEADERSHIP AND NEED SCHOLARSHIPS

Leadership Scholarships are based on leadership qualities as well as academic records and need for financial assistance. The amounts will vary with financial need, with the maximum of two-thirds of the amount needed in addition to the family contribution for the school year.

## INFORMATION IS AVAILABLE

Additional information concerning financial aid and part-time employment can be obtained by writing to: Director of Financial Aids, Stout State University, Menomonie, Wisconsin 54751.

## Fall Orientation for Freshmen

A major project during the first week of school is to help new students become accustomed to living on a university campus. During the week a series of activities are planned to accomplish this goal. Activities begin with a convocation where the President of Stout State University sets mood for the academic climate. This is followed by discussion sessions where students meet in small groups with a faculty member or an upper class student as leader to discuss very informally the intellectual environment of a university. Blended into the business at hand is a pleasant mixture of recreational activities including a sports spree conducted at the Physical Education Center, two dances, and a picnic for all new students. Meetings in residence halls, coffee parties, contacts with upper-classmen, and other planned activities all combined with the other events provide the new student with the impetus for the successful beginning of a university education.

## Student Advisement Program

There exists on the campus an academic advisement program directed by the Coordinator of New Student Advisement. Through this office all new students receive assistance in completing a class schedule during the summer registration program.

After the student arrives on campus to begin classes he continues to receive assistance from the advisement office. Information on course selection, majors and minors, probation and suspension policies, transfer procedures, and many other items are available.

After a student completes a class schedule for the second semester and selects a major, he is assigned to the Director of his major who, in turn, assigns the student to a permanent advisor.

A series of seminars, conducted in the residence halls, keep students informed of new developments with the different academic areas on campus.

As a summary statement, the Student Advisement Office is the place where all students may come to seek assistance or information about problems related to the academic offerings and policies of the university.



## VETERANS SERVICE

Special assistance is given veterans by the Registrar's Office. This office provides veterans with current information on veteran's affairs and maintains liason with the Veterans Administration, Department of Veterans Affairs, and the County Veterans Service Officers.

## PLACEMENT

Following graduation come opportunities for careers and service. The placement office is maintained to provide the supportive services to seniors, graduate students and alumni that will enable them to achieve their personal and career objectives. The goal of the placement office is to give effective support to the placement efforts each individual is expected to make in securing the position best for him.

Registration for placement is a requirement for graduation. Essentially this involves filing with the placement office various placement forms and securing references from a specified number of reference persons.

In addition to assisting the graduate in establishing his placement credentials, the placement office makes every effort to bring to the attention of the candidate for placement information about specific openings, trends in supply and demand, data about salaries and conditions of employment, and the use of effective application techniques.

Alumni are advised to keep their placement credentials updated and they are invited to make use of our placement services when they desire to relocate. A form for registering for placement service and for updating credentials is available by writing to the Director of Placement Services.

## STUDENT ACTIVITIES

All extra-curricular activities at Stout State University are considered to be a part of the over-all educational process. These activities are geared to the growth and development of the individual students. Through the various boards, committees, and staff the University provides cultural, social and recreational programs which complement the complete educational objective. In all these programs, encouragement is given to self-directed activity which gives maximum opportunity for self-evaluation and growth in social competency and group effectiveness. Such programs also serve as a laboratory for citizenship, training students in social responsibility, and for leadership in our democratic society.

The lyceum series bring to our campus talents of national and international renown in the form of guest lecturers, singers, symphonies, singing or acting groups. The Stout Student Association sponsors various forms of entertainment such as dances, singing groups, and special weekends which include Homecoming and Winter Carnival. The Student Center, through its program of films, lecturers, entertainment, and recreation adds to the social and recreational development of the student. In addition, a recreational and intramural program is sponsored by the physical education department. Many other programs are sponsored by individual groups on campus.

More than 70 organizations are university affiliated. This number includes fraternities, sororities, religious and special interests groups, service organizations, and honorary societies. Such a range of organizations provides a broad spectrum of interests in which every student is encouraged to participate.

### THE MEMORIAL STUDENT CENTER

The hub of campus student social activity, the Memorial Student Center, presents an informal atmosphere for enjoyable experiences including lectures and cultural events, social programs, and informal gatherings. Facilities include a cafeteria, snack bar, ballroom, offices, bookstore, meeting rooms, and a recreation room featuring the latest in bowling and recreational equipment.

The newest feature in the Center is The Pawn. Opened in the fall of 1968, The Pawn presents a coffee house atmosphere with periodic live entertainment.

The Student Union Board, composed of students, sponsors programs in the areas mentioned. In addition, the board acts as an advisory organization in policy making for the center.

### STUDENT GOVERNMENT

The Stout Student Association includes all enrolled students. The SSA officers, elected by the student body, serve as the executive branch and are also the officers of the Student Senate.

The Student Senate consists of representatives of various interest groups and of the student body at large. The deans of students are members of the Senate which is the legislative branch of SSA.

### PUBLICATIONS

Stout State University claims two All-American publications; the TOWER, yearbook, and the *Stoutonia*, the student-published weekly newspaper.

The publications offer students considerable practical experience in printing, writing, photography, editing and advertising. Editorial staffs for both publications begin duties in January.

A Stout literary book, published in the spring, affords students with additional artistic and literary opportunities.

### DRAMATICS

Alpha Psi Omega, a national dramatic fraternity, and the University Theatre group present several plays each year. Students participate not only in the acting, but in all phases of play production, including scene construction, staging and lighting.

### FORENSICS

The opportunity for intercollegiate forensics competition in oral interpretation, oratory, extemporaneous and public speaking is offered to the students. The Wisconsin Kappa Chapter of Pi Kappa Delta, a national forensic fraternity, sponsors an invitational tournament and other events throughout the year.



## MUSIC

The Stout Concert Band and the Stout Symphonic Singers have received acclaim throughout Wisconsin and in other parts of the nation. Band activities include concerts, parades, football game shows, pep band appearances, and concert tours. The Stout Symphonic Singers have received many plaudits including a commendation from the Wisconsin General Assembly for their performances. Concert tours highlight the activities of the group. Glee Club, vocal and instrumental ensembles, in addition to solo performances, enrich the musical performance program on our campus.

## HONORARY PROFESSIONAL ORGANIZATIONS

A number of Honorary and/or Professional Fraternities and Sororities are chartered at Stout. These organizations supplement the specialized academic area with programs originating on a local or national level and disseminating the latest technical information available.

## PROFESSIONAL AND EDUCATIONAL CLUBS

These organizations offer opportunity for professional growth. In most instances these organizations provide practical experience opportunities which supplement the academic interests of the students.

## INTERNATIONAL RELATIONS

Since Stout is a leader in the field of Industrial Education and Home Economics on an international level, students from many countries attend the university. With such a background of diverse cultures, these people enrich the student body by their association and exchange of ideas for our students. The International Relations Club offers opportunity to pursue international interests and associations on a more personal basis.

## INTEREST GROUPS

A number of organizations on campus are chartered with the purpose of meeting the extra curricular interests of the students. Such organizations are political clubs, recreational organizations, hobby groups, and other organizations which offer students the opportunity to continually develop their specific interests.

## SOCIAL FRATERNITIES AND SORORITIES

The social fraternities and sororities at Stout contribute to the social life and experiences of their members and also provide specific leadership experiences for them. In addition, the programming of these organizations are geared to further enhance the over-all goals and objectives of the university.

## RELIGIOUS ORGANIZATIONS

There are several groups representing the different and diverse student religious preferences organized and active on the Stout campus. A number of local churches have united to provide full or part time adult leadership to groups as well as supplying off-campus centers for programs.

## SERVICE ORGANIZATIONS

While many organizations on campus perform services for the students and for the University in general, Alpha Phi Omega Fraternity and Camma Sigma Sigma Sorority have as their main objective service to the University community; they participate in many official events on campus.

## ATHLETICS, SPORTS, AND RECREATIONAL ACTIVITIES

The athletic program at Stout State University exists for the contribution it makes to the total educational program. For the participants it provides general educational values and constitutes a laboratory for those who aspire to participation in coaching.

Intercollegiate athletics are under the direction of the Faculty Committee on Athletics. Stout State University is a member of the Wisconsin State University Athletic Conference and the National Association of Intercollegiate Athletics and is committed to the objectives and regulations of these organizations. The University has varsity teams in intercollegiate competition in baseball, basketball, football, golf, gymnastics, tennis, cross country, swimming, hockey, track, and wrestling. A bowling team which competes in the Wisconsin State University Bowling League is under the jurisdiction of the Student Center. The "S" Club is a campus organization for men who have earned letters in intercollegiate sports.

Intramural Athletics is considered an important part of the overall recreational opportunities for students. Programming is offered in a number of sports such as football, basketball, wrestling, and swimming. In addition, ample opportunity is provided for individual and group athletics during the many hours of open recreation in the Physical Education Building.

## PERSONNEL DIRECTORY

Coordinating Council for Higher Education

Board of Regents of Wisconsin State Universities

Board of Visitors

Administration

Faculty

## STATE COORDINATING COUNCIL FOR HIGHER EDUCATION

(AS OF MAY, 1969)

Arthur Browne, Executive Director.....	Madison
Abbott Byfield.....	Neenah
Thomas M. Cheeks.....	Milwaukee
Charles D. Gelatt.....	LaCrosse
William C. Kahl.....	Madison
Walter J. Kohler.....	Sheboygan
Harold A. Konnak.....	Racine
W. Roy Kopp.....	Platteville
William Kraus.....	Stevens Point
Philip E. Lerman.....	Milwaukee
Norman L. Christianson.....	Roberts
Joseph Noll.....	Kenosha
Maurice Pasch.....	Madison
Frank H. Ranney.....	Milwaukee
John D. Rice.....	Sparta
John Roche.....	Rio
C. O. Wanvig, Jr.....	Milwaukee
Arthur E. Wegner.....	Madison

## BOARD OF REGENTS WISCONSIN STATE UNIVERSITIES

(AS OF MAY, 1969)

	Term Expires
W. Roy Kopp, President, Platteville.....	1970
Milton Neshek, Vice-President, Elkhorn.....	1970
Stephen Ambrose, Whitewater.....	1972
David H. Bennett, Portage.....	1971
Norman L. Christianson, Roberts.....	1974
John J. Dixon, Appleton.....	1974
Allan L. Edgerton, Fond du Lac.....	1972
Eugene W. Murphy, LaCrosse.....	1973
James A. Riley, Altoona.....	1973
James G. Solberg, Menomonie.....	1970
Siinto S. Wessman, Superior.....	1971
Mrs. Robert R. Williams, Stevens Point.....	1970
Eugene R. McPhee, Madison; Secretary and Executive Director of Wisconsin State Universities system	
William C. Kahl, State Superintendent of Public Instruction (ex-officio)	

## BOARD OF VISITORS

(AS OF JUNE, 1969)

The Stout State University Board of Visitors is an organization of individuals from policy-making levels in the non-academic community who are willing to work with the administrators and faculty of the University to help achieve the following objectives: Fostering closer cooperation between business, industry and the university; reacting as a sounding board to specific topics at meetings; helping the University obtain financial and other resources to grow beyond what we can expect with regular tax support; keeping the university updated on new developments and personnel needs in industry; and helping make Stout State University better known in the business and industrial community.

Robert W. Bachmann, Manager—Customer/Sales Education, Kearney & Trecker Corp., Milwaukee.

Earle Brooks, Ass't. to Executive Vice President, Dayton's, Minneapolis.

R. G. Commo, Vice President, Industrial Relations, Giddings & Lewis Machine Tool Co., Fond du Lac.

J. R. Freyermuth, President, Northwest Plastics, Inc., St. Paul.

Clarence L. Creiber, Director, State Board of Vocational, Technical & Adult Education, Madison.

W. A. Gullicksen, President, Churchill Cabinet Co., Chicago.

Ken Haagenonson, Executive Vice President, Wisconsin State Chamber of Commerce, Madison.

Carleton C. Hitchcock, President, R. C. Hitchcock & Sons, Inc., Minneapolis.

W. H. Keland, Wisconsin River Development Corporation, Racine.

Keith C. Koch, Training Director, Racine Division, Western Printing & Lithographing Co., Racine.

Sanford L. Krueger, Factory Manager, Uniroyal Tire Co., Eau Claire.

Wilbur N. Marx, President, Northern States Power Co., Eau Claire.

Harold Polzer, Personnel Director, Oscar Mayer & Company, Madison.

John W. Schmitt, President, Wisconsin A.F.L.-C.I.O., Milwaukee.

Dorr Snoyenbos, Director of Personnel, A. C. Electronics Division, General Motors, Milwaukee.

Robert H. Strenger, General Representative, U.B. of C. & J. of A., Madison.

John R. Wrage, President, Industrial Manager Consultants, Inc., Madison.

## UNIVERSITY ADMINISTRATION

William J. Micheels, Ph.D. ....	President
John A. Jarvis, Ph.D. ....	Vice President for Academic Affairs
Ralph G. Iverson, Ed.D. ....	Vice President for Student Services
John Furlong, Ph.D. ....	Vice President for University Relations and Development
E. J. Schoepp, A.B. ....	Vice President for Business Affairs
Dwight L. Agnew, Ph.D. ....	Dean, School of Liberal Studies
Herbert A. Anderson, Ed.D. ....	Dean, School of Applied Science and Technology
Merle M. Price, M.A. ....	Dean of Students
J. Anthony Samenfink, Ed.D. ....	Dean, School of Home Economics
John B. Stevenson, Ph.D. ....	Dean, School of Education
Robert S. Swanson, Ph.D. ....	Dean, Graduate School
Samuel Wood, M.A. ....	Dean, Admissions and Records
Freda M. Wright, M.A. ....	Dean, Student Activities
Helmuth Albrecht, B.S. ....	Director of Housing
Richard E. Anderson, Ed.D. ....	Registrar
Frank J. Belisle, M.A. ....	Director of Placement
Phyllis D. Bentley, M.S. ....	Librarian
Gerald Donley, M.S. ....	Coordinator, Advisement
Paul Goede ....	Food Service Director
Alan A. Klink, M.S. ....	Director of Student Center
Joseph M. Larkin, Ed.D. ....	Director of Financial Aids
David A. McNaughton, Ph.D. ....	Director of the Counseling Center
Donald Osegard, B.A. ....	Director of Admissions
Louis Rodey, M.S. ....	Superintendent of Buildings and Grounds
Jack Wile, A.B. ....	Director of Development and Alumni Services

## UNIVERSITY FACULTY

William J. Micheels (1961) President Stout State University, B.S.; University of Minnesota, M.A., Ph.D.
Patricia C. Abbott (1969) Instructor, English Baltimore Community College, A.A.; University of Maryland, B.A.; Marquette University, M.A.; Graduate Study
Dwight L. Agnew (1947) Dean of the School of Liberal Studies, Professor Park College, A.B.; University of Iowa, A.M., Ph.D.
Donna J. Albrecht (1969) Instructor, Clothing, Textiles and Design Stout State University, B.S., M.S.
Helmuth Albrecht (1963) Director of Student Housing, Faculty Assistant Stout State University, B.S.

- Kenneth G. Allison (1969) Faculty Assistant, Vocational Rehabilitation  
University of Omaha, B.G.E.
- William D. Amthor (1960) Chairman of the Department of Industrial  
Graphics, Professor  
Stout State University, B.S., M.S.; University of Minnesota, Texas  
A&M University, Ed.D.
- Herbert A. Anderson (1948) Dean of the School of Applied Science and  
and Technology, Professor  
Stout State University, B.S.; University of Minnesota, M.A.; Uni-  
versity of Missouri, Ed.D.
- Orlin Anderson (1968) Professor, Biology  
Wisconsin State University-River Falls, B.S.; University of Wiscon-  
sin, M.S., Ph.D.
- Richard E. Anderson (1967) Registrar, Associate Professor  
Stout State University, B.S., M.S.; University of Wisconsin, Colorado  
State College, Ed.D.
- Brooke Anson (1969) Educational Materials Center Librarian, Instructor  
Nebraska Wesleyan University, B.A.; University of Illinois, M.L.S.
- Herman C. Arneson (1945) Associate Professor, Biology  
Northland College, B.A.; University of Minnesota, M.A.; Graduate  
Study
- Mehar C. Arora (1965) Associate Professor, Industrial Technology  
Delhi University, B.A.; Punjab University, M.A.; University of Min-  
nesota, M.S.; Graduate Study
- Paul A. Axelsen (1956) Assistant Professor, Graphic Arts  
Stout State University, B.S., M.S.; University of Minnesota, Graduate  
Study
- Willard Fee Bailey, Jr. (1966) Assistant Professor, Sociology  
University of Minnesota, B.A., M.A.; Graduate Study
- Robert W. Baldwin (1967) Assistant Professor, Wood Technics and  
Plastics  
Northwest Missouri State Teachers College, B.S.; Kansas State Col-  
lege of Pittsburgh, M.S.; Eastern Kentucky University, Graduate  
Study
- Raoul Barlow (1969) Assistant Professor, English  
Sacred Heart College, B.A., M.A.; Marquette University, M.A.;  
Northwestern University, Graduate Study
- David P. Barnard (1947) Chairman of the Department of Audio-Visual  
Communication, Director of Audio-Visual Center, Professor  
Stout State University, B.S., M.S.; Indiana University, Ed.D.



William E. Beane (1969) Instructor, Education and Psychology  
Illinois State University, B. S., M.S.

Dorcie W. Bearbower (1969) Faculty Assistant, Vocational Rehabilitation  
East Carolina College, A.B.

Kenneth T. Becker (1966) Instructor, Mathematics  
St. John's College, B.A.; University of Notre Dame, M.S.

Sue E. Beckham (1969) Instructor, English  
Georgetown College, B.A.; University of Mississippi, M.A.

Robert P. Behling (1969) Associate Professor, Business Administration  
University of Denver, B.S., B.A.; University of Illinois, M.S.; Certified Public Accountant—Wisconsin, Illinois and Kansas

Frank J. Belisle (1955) Director of Placement Services, Professor  
Wisconsin State University—River Falls, B.Ed.; University of Minnesota, M.A.

M. James Bensen (1966) Associate Professor, Industrial Teacher Education  
Bemidji State College, B.S.; Stout State University, M.S.; Pennsylvania State University, Ed.D.

Phyllis D. Bentley (1954) Librarian, Associate Professor  
University of Wisconsin, B.A.; Columbia University, M.S.

David A. Beveridge (1966) Instructional Systems Engineer, Coordinator of Programmed Instruction, Instructor  
Stout State University, B.S., M.S.

James Bjornerud (1964) Professor, Wood Technics and Plastics  
Bemidji State College, B.S.; Ohio University, M.Ed.; University of Minnesota, Graduate Study

Florence Blank (1969) Instructor, Child Development and Family Life  
Wisconsin State University—Eau Claire, B.S.; Stout State University M.S.

Mary Josephine Rathke Bodvarsson (1959) Acting Chairman of the Department of English, Associate Professor  
College of Saint Teresa, A.B.; University of Wisconsin, M.A.; Graduate Study

Karen E. Boe (1964) Assistant Professor, English  
Augustana College, St. Olaf College, B.A.; University of Wisconsin, M.A.; Northwestern University, University of Wisconsin, Graduate Study

- Katherine K. Bollom (1969) Instructor, Child Development and Family Life  
Wisconsin State University—Eau Claire, B.S., M.S.
- Dennis P. Bolstad (1961) Professor, Education and Psychology  
St. Olaf College, B.A.; Macalester College, M.Ed.; University of Colorado, Ed.D.
- Todd A. Boppel (1963) Assistant Professor, Art  
University of Wisconsin—Milwaukee, B.S., M.S.; University of Southern California, M.F.A.
- John A. Bostrom (1968) Coordinator of Student Publications, Faculty Assistant  
Luther College, B.A.
- Caroline M. Bosworth (1969) Resident Head, Instructor  
University of Oklahoma, B.A., M.A.
- David L. Bratt (1969) Instructor, Speech  
Calvin College, B.A.; University of Iowa, M.A.
- Edward A. Bredahl (1969) Assistant Professor, Biology  
Concordia College, B.A.; University of North Dakota, M.S.T., Ph.D.
- Fred C. Breisch (1966) Associate Professor, Mathematics  
University of Michigan, A.B.Ed., A.M.
- Jean Ann Breisch (1967) Instructor, Education and Psychology  
Bemidji State College, B.S.; University of Minnesota, M.A.
- Charles Brenner (1968) Assistant Professor, Electronics  
Stout State University, B.S.; University of Missouri, M.S., Ed.D.
- Donn Brolin (1969) Director of Undergraduate Training—Vocational Rehabilitation, Associate Professor  
Bradley University, B.S.; University of Wisconsin, M.S., Ph.D.
- Esther Lee Brown (1969) Instructor, Home Economics Education  
Stout State University, B.S.; Iowa State University, M.S.
- John Bryson (1968) Special Lecturer, Hotel and Restaurant Management
- Charles L. Buelow (1968) Director for Editorial and Information Services  
University of Wisconsin—Milwaukee, B.S.
- Richard F. Burns (1968) Associate Professor, Electronics  
Notre Dame University, B.S.; Universitat of Bern, Switzerland; Universite De Fribourg, Germany; Universitat Gottingen, Germany; Universite De Paris, France; University of Illinois, Graduate Study

- Lois E. A. Byrns (1960) Professor, English  
University of Wisconsin, B.A., M.A., Ph.D.; Columbia University,  
George Washington University, Post Doctoral Study
- Robert B. Caldwell (1969) Instructor, Sociology  
University of Wisconsin, B.A.; University of Minnesota, M.A.
- Ralph W. Callender (1966) Assistant Professor, Industrial Technology  
Syracuse University, A.B.; University of Illinois, M.S.; Registered  
Professional Engineer
- James T. Cameron (1969) Assistant Dean of Students, Assistant Pro-  
fessor  
Colorado College, B.A.; University of Colorado, M.A.
- Robert M. Cameron (1968) Chairman of Department of Marketing and  
Distributive Education. Associate Professor  
Miami University, Ohio State University, B.S.; New York Univer-  
sity, M.S.; Indiana University, Ed.D.
- Garry N. Carlson (1969) Instructor, Art Education  
University of Minnesota-Duluth, B.S.; University of Wisconsin, M.S.
- Judith B. Carlson (1965) Instructor, Physical Education  
Wisconsin State University-Eau Claire, B.A.; University of Minne-  
sota, B.S.; University of Colorado, Graduate Study
- Oscar V. Carlson (1968) Associate Professor, Biology  
Buena Vista College, B.S.; Iowa State University, M.S., Ph.D.
- Paul J. Carollo (1969) Assistant Professor, University Counseling Center  
Northern Michigan University, B.S.; Central Michigan University,  
M.A.; Arizona State University, Ed.D.
- Clara A. Carrison (1948) Associate Professor, Food Science and Nutri-  
tion  
Western Illinois University, B.E.; University of Iowa, M.S.; Ohio  
State University, Pennsylvania State University. University of Ten-  
nessee, University of Minnesota, Iowa State University, University of  
Arizona, Graduate Study
- Kay J. Carter (1966) Faculty Assistant, Physical Education  
Wisconsin State University-LaCrosse, B.S.; Graduate Study
- DonaId F. Clausen (1964) Professor, Chemistry  
University of Minnesota, M.S., Ph.D.
- Lee Roy Clendenning (1967) Assistant Professor, Electronics  
State University College at Owsego, New York, B.S.; Ohio Univer-  
sity, M.Ed.; University of Illinois, Graduate Study

Dorothy F. Clure (1956) Assistant Professor, Home Management, Economics and Equipment  
Stephens College, A.A.; Iowa State University, B.S.; University of Chicago, M.A.; University of Minnesota, University of Wisconsin, Graduate Study

Darrell D. Coffey (1967) Assistant Professor, Vocational Rehabilitation  
University of Iowa, B.A., M.A.

James A. Collier (1965) Assistant Professor, Power Technology  
Indiana Institute of Technology, Indiana University, Ball State University, B.S.; Stout State University, M.S.; Texas A&M University, Graduate Study

Harold R. Cocke (1963) Visiting Professor, Music  
Minneapolis College of Music, B.S.; McPhail College of Music, M.M.E.; University of Minnesota, New England Conservatory of Music, Graduate Study

E. Wayne Courtney (1962) Professor, Graduate College  
Purdue University, B.S., M.S., Ph.D.; Oregon State University, Post Doctoral Study

Douglas A. Cumming (1967) Instructor, Art  
Drake University, B.F.A.; Indiana University, M.F.A.

Mary Frances Cutnaw (1957) Associate Professor, Speech  
University of Wisconsin, B.S., M.A.; Graduate Study

Lorraine C. Dahlke (1966) Professor, Food Science and Nutrition  
University of Wisconsin, University of Minnesota, B.A.; State University, Iowa City, M.S.; Ohio State University, Ph.D.

Robert E. Dahlke (1968) Director of School Relations, Instructor  
Stout State University, B.S.; Colorado State University, Stout State University, M.S.

James R. Daines (1963) Professor, Power Technology  
Stout State University, B.S., M.S.; University of Michigan, University of Houston, University of Missouri, Ed.D.

Ervin A. Dennis (1966) Associate Professor, Graphic Arts  
Colorado State College, B.A., M.A.; Texas A&M University, Ed.D.

Joanne R. Desotelle (1967) Instructor, English  
Moorehead State College, B.A., M.A.

John C. Deutscher (1966) Associate Professor, Education and Psychology  
Wisconsin State University-Eau Claire, B.S.; Stout State University, M.S.; University of North Dakota, Ed.D.

- John A. Diana (1969) Faculty Assistant, American Industry  
Stout State University, B.S.
- Donald A. Dickmann (1961) Associate Professor, Biology  
Lakeland College, B.S.; South Dakota State University, M.S.; Iowa State University, South Dakota State University, Graduate Study
- Carol A. Dobrunz (1965) Associate Director of Health and Physical Education, Assistant Professor  
Wisconsin State University-LaCrosse, B.A.; University of Michigan, M.A.; Springfield College, University of Oregon, Graduate Study
- Gerald Donley (1965) Coordinator of New Student Advisement, Instructor  
Wisconsin State University-River Falls, B.S.; Stout State University, M.S.
- Mary R. Donley (1959) Assistant Librarian, Assistant Professor  
University of Minnesota, B.A., M.A.; Columbia University, Graduate Study
- Henry E. Draper (1968) Chairman of the Department of Child Development and Family Life, Professor  
Brigham Young University, B.S.; Oregon State University, M.Ed., Ph.D.
- Dennis Dunn (1969) Assistant Professor, Vocational Rehabilitation  
University of Buffalo, B.A.; State University of New York-Buffalo, M.S.; University of Maryland, Ed.D.
- Dorothy F. Dunn (1968) Chairman of the Department of Home Management, Economics and Equipment, Professor  
University of Illinois, B.S.; University of North Carolina, M.S.P.H.; University of Minnesota, South Dakota State University, Purdue University, Ph.D.
- Edwin W. Dyas (1956) Associate Professor, Wood Technics and Plastics  
University of Nebraska, B.S.; University of Minnesota, M.A.; University of Omaha, Stout State University, Graduate Study
- Paul Roy Edmondson (1969) Assistant Professor, English  
Mexico City College, B.A.; New Mexico Highlands University, M.A.; New York University, Graduate Study
- James E. Eggert (1967) Instructor, Economics  
Lawrence University, B.S.; Michigan State University, M.S.
- Marvin B. Elbaum (1969) Instructor, Business Administration  
Indiana State University, B.A., M.B.A.
- John F. Entorf (1967) Chairman of the Department of Metals, Professor  
Northern Montana College, B.S.; Texas A&M University, M.E., Ed.D.

Kenneth J. Erickson (1961) Assistant Professor, Industrial Graphics  
Wisconsin State University-Platteville, B.S.; University of Minnesota, M.A.; Graduate Study

Thomas Eshelman (1969) Assistant Professor, Audio-Visual Education  
Clarion State College, B.S.; Syracuse University, M.S.

Wesley L. Face (1957) Assistant to the Vice-President, Curriculum Coordinator, Professor  
Northern State College, South Dakota, B.S.; Stout State University, M.S.; University of Illinois, Ed.D.

Paul G. Faler (1969) Instructor, History  
Southern Methodist University, B.A.; University of Wisconsin, M.A.; Graduate Study

Noel J. Falkofske (1962) Associate Professor, Speech  
Wisconsin State University-River Falls, B.S.; Kent State University, M.A.; University of Oregon, Graduate Study

John J. Faris (1968) Chairman of the Department of Physics, Professor  
Reed College, B.A.; University of Washington, Ph.D.

Paul W. Fenton (1968) Instructor, Education and Psychology  
Illinois State University, B.S., M.S.

Eugene R. F. Flug (1962) Assistant to the President, Professor  
University of Minnesota, B.B.A., B.S., M.A., Ph.D.

John T. Forsythe (1969) Assistant Professor, English  
University of Washington, B.S., M.A.

Kenneth H. Forsythe (1969) Instructor, Mathematics  
Wisconsin State University-Oshkosh, B.S., B.A.; University of Wisconsin-Milwaukee, M.S.

Steve P. Fossum (1966) Assistant Professor, Physics  
St. Olaf College, B.S.; University of Wisconsin, M.A.

Orazio Fumagalli (1964) Chairman of the Department of Art, Professor  
State University of Iowa, B.A., M.F.A., Ph.D.

John Furlong (1963) Vice President for University Relations and Development, Professor  
University of Minnesota, B.S., M.A., Ph.D.

Alan D. Gamache (1967) Instructor, Art  
Rhode Island School of Design, B.F.A.; Tulane University, M.F.A.

- Jack A. Ganzemiller (1963) Director of Field Experience Programs,  
Associate Professor  
General Motors Institute, B.M.E.; Purdue University, M.S.; University of Minnesota, Graduate Study
- Clifford C. Gauthier (1963) Director of the Computer Center, Associate Professor, Mathematics  
St. Cloud State College, B.S.; Bemidji State College, M.S.; Boston College, Graduate Study
- Richard Harrold Gebhart (1965) Assistant Professor, American Industry  
Northern State Teachers College, B.S., M.S.; University of Missouri, Graduate Study
- Glenn Gehring (1965) Associate Professor, Metals  
South Dakota State University, B.S.; Stout State University, M.S.; University of Illinois, Graduate Study
- Earl W. Gierke (1962) Chairman of the Department of Mathematics, Associate Professor  
University of Minnesota, B.S., M.A.; Graduate Study
- Carlyle Gilbertson (1969) Chairman of the Guidance Department, Associate Professor  
Luther College, B.S.; University of Wisconsin, M.S., Ph.D.
- Sandra J. Gill (1969) Instructor, Home Economics Education  
Stout State University, B.S., M.S.
- Douglas D. Gingrich (1967) Associate Professor, Education and Psychology  
Bradley University, B.S.; Colorado State College, M.A., Ed.D.
- Margaret Ann Glennon (1967) Instructor, Clothing, Textiles and Design  
Stout State University, B.S., M.S.; University of Minnesota, Graduate Study
- Edward Gold (1967) Assistant Professor, Chemistry  
University of Wisconsin, B.S., M.S.
- William H. Granse, Jr. (1967) Assistant Professor, English  
University of Michigan, B.S.; Wayne State University, M.A.
- Patrick J. Haberman (1967) Coordinator of Televised Instruction, Instructor  
Mankato State College, B.S., M.S.
- Harold Halfin (1956) Director, Vocational Education, Graduate Program, Associate Professor  
Fairmont State College, A.B.; Stout State University, M.S.; University of West Virginia, Graduate Study



- R. Pinckney Hall (1969) Assistant Professor, University Counseling Center  
Earlham College, B.A.; Northwestern University, M.A., Ph.D.
- Raymond A. Hansen (1967) Instructor, Industrial Technology  
Stout State University, B.S., M.S.
- Myron Harbour (1947) Associate Professor, Physics  
Wisconsin State University-Superior, B.E.; University of Wisconsin, Ph.M.
- Robert R. Hardman (1964) Director of Audio-Visual Communications, Associate Professor  
Maryland State College, B.S.; Indiana University, M.S.
- Margaret E. Harper (1948) Associate Professor, Home Economics Education  
Kansas Wesleyan University, B.S.; Kansas State University, M.S.; Colorado State University, Iowa State University, Graduate Study
- Harold Hayes (1968) Coordinator of Media-Instruction and Research, Associate Professor  
Fresno State College, B.A., M.A.; Oregon State University, Graduate Study
- Mary E. Heck (1968) Instructor, Art  
University of Kansas, B.A., M.A.
- Howard S. Heise (1967) Instructor, Speech  
Wisconsin State University-River Falls, B.S.; State University of South Dakota, M.A.
- Harry A. Herbert (1965) Assistant Director of Audio-Visual Center, Coordinator of Motion Picture Production, Associate Professor  
Bowling Green State University, B.S.; Stout State University, M.S.; Indiana State University, Graduate Study
- James F. Herr (1965) Assistant Professor, Graphic Arts  
Stout State University, B.S., M.S.; University of Missouri, Graduate Study
- Judith Herr (1969) Instructor, Child Development and Family Life  
Stout State University, B.S., M.S.
- Marybelle Hickner (1965) Professor, Home Economics Education  
University of Minnesota, B.S., M.A., Ph.D.
- Allen D. Hilgendorf (1968) Instructor, Physics  
University of Minnesota, B.S.; University of South Dakota, M.N.S.

- Armand G. Hofer (1964) Professor, Wood Technics and Plastics  
Northwest Missouri State College, B.S.; University of Missouri,  
M.Ed., Ed.D.
- Kathryn L. Hoffman (1969) Resident Head, Instructor  
Temple Buell College, B.A.; University of New Mexico, M.A.
- Paul R. Hoffman (1964) Administrator, Institute for Vocational Rehabil-  
itation, Professor  
University of Maine, B.A.; University of Iowa, University of Arizona,  
Ed.D.
- Carol Hogstad (1969) Instructor, Education and Psychology  
Stout State University, B.S., M.S.
- Robert Hokeness (1965) Assistant Professor, Wood Technics and Plastics  
Mankato State College, B.S.; Stout State University, M.S.; Colorado  
State College, Graduate Study
- Mary Frances Holman (1968) Assistant Professor, Psychology  
North Texas State Teachers College, A.B.; Southwestern Baptist  
Theological Seminary, M.R.E.; Washington University, M.A.; Univer-  
sity of Nebraska, Graduate Study
- Veryle E. Homuth (1966) Associate Professor, Education and Psychology  
Valley City, North Dakota, B.S.; North Dakota University, M.S.,  
Ed.D.; University of Wisconsin, Post Doctoral Study
- Dennis R. Hoogenboom (1969) Assistant Catalog Librarian, Instructor  
Calvin College, A.B.; University of Michigan, M.A.L.S.
- John M. Houle (1967) Associate Professor, Education and Psychology  
St. Louis University, B.S.; Stout State University, M.S.; University  
of Wisconsin, Ph.D.
- Dennis E. Howley (1966) Instructor, Library  
Wisconsin State University-Platteville, B.S.; Western Michigan Uni-  
versity, M.S.
- B. Jane Hoyt (1969) Faculty Assistant, Hotel and Restaurant Manage-  
ment  
Leicester Domestic Science College, Leicester, England, Diploma
- Robert L. Hoyt (1967) Assistant Professor, University Counseling Center  
Northwestern University, B.S., M.A.
- Ronald W. Hull (1969) Instructor, Industrial Technology  
Stout State University, B.S.; Stanford University, M.S.
- Frank Ireland (1968) Associate Professor, Industrial Technology  
Union University, B.S.; Iowa State University, Ph.D.

- Ralph G. Iverson (1951) Vice President for Student Services, Professor, Education and Psychology  
Augustana College, B.S.; University of Minnesota, M.A.; University of California, Ed.D.
- Sherman D. Iverson (1967) Instructor, Art  
University of Minnesota-Duluth, B.A.; Michigan State University, M.F.A.
- Erma Jean Jackie (1968) Assistant Professor, Clothing, Textiles and Design  
University of Idaho, B.S., M.S.
- F. Russell James (1968) Instructor, Biology  
University of Nebraska, B.S., M.Ed.
- Margaret A. James (1961) Assistant Professor, Food Science and Nutrition  
University of Wisconsin, B.S., M.S.; University of Minnesota, Graduate Study
- John J. Janc (1969) Instructor, French  
Wisconsin State University-Eau Claire, B.A.; University of Michigan, M.A.; University of Wisconsin, Graduate Study
- John A. Jarvis (1946) Vice President for Academic Affairs, Professor  
University of Wisconsin, B.S. in Mechanical Engineering; Stout State University, B.S.; Wayne State University, M.Ed.; University of Minnesota, Ph.D. Registered Professional Engineer
- John J. Jax (1959) Assistant Librarian, Associate Professor  
Wisconsin State University-LaCrosse, B.A.; University of Wisconsin, M.S.; University of Minnesota, University of Illinois, Graduate Study
- Dorothy Jensen (1966) Assistant Professor, Clothing, Textiles and Design  
Illinois State University, B.S.; New York University, M.A.; University of Illinois, Colorado A&M, Graduate Study
- Mary Jensen (1969) Faculty Assistant, Vocational Rehabilitation  
Clarke College, B.A.; Mankato State College, M.S.
- Emily Jenson (1966) Instructor, English  
Ripon College, Ph.B.; Winona State College, M.E.
- Gust Jensen III (1965) Associate Professor, Education and Psychology  
University of Missouri, B.S., M.A.; University of Minnesota, Graduate Study
- Michael J. Jerry (1967) Associate Professor, Art  
Rochester Institute of Technology, B.F.A., M.F.A.; Cranbrook Academy of Art, Graduate Study

- Joy Ann Jocelyn (1966) Instructor, Food Science and Nutrition  
Hunter College, B.S.; New York University, M.A.
- Duane A. Johnson (1966) Assistant Professor, Metals  
Northern State Teachers College, South Dakota, B.S., M.A.; University of North Dakota, Graduate Study
- Eleanor Mae Johnson (1967) Assistant Professor, Home Economics Education  
Stout State University, B.S., M.S.; University of Wisconsin, Graduate Study
- Robert A. Johnson (1969) Faculty Assistant, Student Services—Housing  
Stout State University, B.S.
- Stanley A. Johnson (1968) Instructor, Social Science and Business Administration  
Wisconsin State University—Eau Claire, B.S.
- Gordon G. Jones (1965) Assistant Professor, Mathematics  
North Dakota School of Forestry, North Dakota State University, B.S., M.Ed.; University of Missouri, Graduate Study
- John M. Kainski (1967) Associate Professor, Biology  
University of Lwow, Lwow, Poland, Diploma in Agriculture; Kansas State College, M.S.; Cornell University, Ph.D.
- Mercedes H. Kainski (1967) Professor, Food Science and Nutrition  
University of Wisconsin, B.S., M.A., Ph.D.
- Kenneth P. Kajer (1969) Instructor, Sociology  
University of Minnesota, B.A., M.A.
- Robert J. Kamish (1968) Instructor, Physical Education  
Macalester College, B.S.; Stout State University, M.S.
- R. Frank Kehrberg (1967) Instructor, Industrial Graphics  
University of Wisconsin, B.S.; Registered Professional Engineer
- Janice M. Keil (1969) Associate Professor, Child Development and Family Life  
Monmouth College, B.A.; University of Arkansas, M.A.; Michigan State University, Ph.D.
- Raymond L. Keil (1968) Director of the Department of Industrial Technology, Professor  
Bradley University, B.S.; University of Arkansas, M.Ed.; Michigan State University, Ph.D.
- Charles P. Kell (1969) Resident Head, Instructor  
Notre Dame University, B.A.; Stout State University, M.S.

- Alta Belle Kemp (1966) Assistant Professor, Food Science and Nutrition  
Mary Hardin Baylor College, B.A., B.S.; Southwestern Baptist Theological Seminary, M.R.E.; Texas Woman's University, M.S., Ph.D.
- Sil Dong Kim (1969) Instructor, Sociology  
Seoul National University, LL.B.; University of Minnesota, M.A.
- Bonnie M. Kirkwood (1964) Assistant Professor, Clothing, Textiles and Design  
State College of Iowa, B.A.; State University of Iowa, M.A.; Graduate Study
- Dick G. Klatt (1952) Assistant Professor, Metals  
Stout State University, B.S., M.S.
- Wilson M. Kleibacker (1968) Associate Professor, Chemistry  
Williams College, A.B.; University of Pittsburgh, Ph.D.
- Allan A. Klink (1966) Director of Student Activities and Student Center, Assistant Professor  
Wisconsin State University-LaCrosse, B.S., M.S.
- Louis L. Klitzke (1960) Professor, Education and Psychology  
Southwestern College, A.B.; Colorado College of Education, M.A., Ed.D.
- O. Clifford Kubly (1956) Assistant Professor, Physics  
Wisconsin State University-Platteville, B.E.; University of Wisconsin, M.S.; Case Institute of Technology, University of South Carolina, Graduate Study
- Marvin M. Kufahl (1956) Assistant Professor, Metals  
Stout State University, B.S., M.S.; Michigan State University, Graduate Study
- Geraldine H. Laine (1968) Instructor, English  
Marygrove College, B.A.; University of Detroit, M.A.
- William G. Laine (1969) Faculty Assistant, English  
University of Minnesota-Duluth, B.S.
- Warren Lang (1969) Assistant Professor, English  
Massachusetts Institute of Technology, B.S.; University of Indiana, A.B.D., Graduate Study
- Jane Elizabeth Langenes (1969) Resident Head, Instructor  
University of North Dakota, Ph.B.; Ohio State University, M.A.
- Joseph M. Larkin (1966) Director of Student Financial Aids, Associate Professor  
Wisconsin State University-LaCrosse, B.S.; Oklahoma State University, M.S., Ed.D.

- William Larkin (1969) Associate Professor, Industrial Teacher Education  
Stout State University, B.S.; Michigan State University, M.A.;  
Indiana University, Ed.D.
- Marvin Larson (1968) Instructor, English  
Wisconsin State University-Eau Claire, B.S.; University of Wisconsin-Madison, M.A.
- Lorna S. Lengfeld (1956) Professor, Speech  
University of Northern Iowa, Northwestern University, University of Minnesota, University of Wisconsin, B.A.; University of Wisconsin, M.A., Ph.D.; University of Denver, Post Doctoral Study
- James P. Ley (1967) Instructor, Mathematics  
Lakeland College, B.A.; Montana State University, M.S.
- David W. P. Liu (1964) Chairman of the Department of Social Science, Professor of Economics  
National Chengchi University, B.S.; University of Kentucky, M.S.; University of Minnesota, Ph.D.
- Lawrence L. Loh (1969) Instructor, Mathematics  
University of Wisconsin-Milwaukee, B.S., M.S.
- Richard E. Longfellow (1966) Assistant Professor, Vocational Rehabilitation  
West Virginia University, B.S., M.S.
- Richard D. Lowery (1968) Assistant Director of Admissions, Instructor  
Southern Illinois University, B.S., M.S.
- Edward M. Lowry (1959) Chairman of the Department of Biology, Professor  
Ripon College, A.B.; University of Michigan, University of North Carolina, Michigan State University, University of Missouri, Ph.D.
- Terrance P. Lynch (1969) Instructor, Electronics  
Marquette University, B.S.E.E.; University of Wisconsin, M.S.E.E.
- David McCordick (1969) Assistant Professor, English  
University of Colorado, B.A., M.A.; University of Wisconsin, Graduate Study
- Raymond A. McCoy (1968) Assistant Professor, English  
Union College, A.B.; DePaul University, M.A.; University of Chicago, Orienta Institute, Graduate Study
- Sara Lynn McMillan (1967) Instructor, Speech  
Denver University, B.A.; University of Minnesota, M.A.

- David A. McNaughton (1966) Director of Counseling Center, Associate Professor  
Stout State University, B.S.; University of Wyoming, M.Ed., Ph.D.
- Daniel O. Magnussen (1965) Associate Professor, History  
University of Montana, B.A., M.A.; Graduate Study
- Luther A. Mahan (1966) Professor, Biology  
Iowa State College, B.S.; Pennsylvania State University, M.S., D.Ed.
- Rita Todd Mahan (1963) Associate Professor, Clothing, Textiles and Design  
Stout State University, B.S., M.S.
- Eino Maki (1963) Associate Professor, Mathematics  
Ferris Institute, B.S.; University of Wisconsin, M.S.; Graduate Study
- Thomas Makosky (1969) Assistant Professor, Art  
Indiana State Teachers College, B.S.; Indiana University, M.S.
- Dion R. Manriquez (1967) Instructor, Art  
University of Omaha, B.F.A.; University of Iowa, M.A., M.F.A.
- Lyle E. Mark (1968) Instructor, Economics  
St. Benedict's College, A.B.; University of Kansas, M.S.
- Arthur C. Matthews (1969) Assistant Professor, Speech  
Valparaiso University, A.B.; State University of Iowa, A.M.
- Eva Gail Mayer (1969) Instructor, Home Management, Economics and Equipment  
University of Kentucky, B.S.; University of Tennessee, M.S.
- John Medelman (1969) Assistant Professor, English and Journalism  
University of Minnesota, B.A., B.S.; Graduate Study
- Robert C. Meier (1968) Instructor, English  
Brown University, A.B.; University of Arizona, Graduate Study
- Ella Jane Meiller (1950) Chairman of the Department of Food Science and Nutrition, Professor  
Kansas State University, B.S.; University of Wisconsin, M.S.; Kansas State University, University of Minnesota, Graduate Study
- Robert J. Melrose (1958) Associate Professor, History and Political Science  
Stout State University, Wisconsin State University-Eau Claire, B.S.; Wisconsin State University-Superior, University of Minnesota, M.A.; Graduate Study



- Paul F. Menges (1967) Acting Chairman of the Department of Business Administration, Associate Professor  
George Washington University, B.A.; Columbia University, M.A.; University of Washington, University of North Dakota, Graduate Study
- Marcia D. Metcalf (1968) Chairman of the Department of Clothing, Textiles and Design, Associate Professor  
University of Wisconsin, B.S., M.S.
- Richard H. Miller (1964) Professor, Mathematics  
Moorehead State College, B.S.; North Dakota State University, M.S.; South Dakota University, Ed.D.
- Thomas F. Miller (1968) Resident Head, Coordinator of Off-Campus Student Housing, Faculty Assistant  
University of Wisconsin-Milwaukee, B.S.
- Dwain P. Mintz (1962) Director of Health and Physical Education, Associate Professor  
Mankato State College, B.S., M.S.; Graduate Study
- Harlyn Misfeldt (1965) Assistant Professor, American Industry Project  
Stout State University, B.S., M.S.
- Louis A. Moegenburg (1967) Associate Professor, Industrial Graphics  
Stout State University, B.S., M.S.; Texas A&M University, Graduate Study
- Edward O. Morical (1957) Associate Professor, Power Technology  
Bemidji State College, B.S.; Wayne State University, M.Ed.; Graduate Study
- Mark A. Mowbray (1969) Faculty Assistant, Power Technology  
Stout State University, B.S.
- William J. Mueller (1969) Assistant Professor, Chemistry  
University of Minnesota, B.Chm., M.S.; University of Idaho, Ph.D.
- Arthur Muller (1965) Assistant Professor, Metals  
Stout State University, B.S., M.S.
- Joan M. Myers (1969) Instructor, Speech  
St. Louis University, B.S.; Marquette University, M.A.
- Gerald L. Myers (1969) Instructor, Speech  
St. Louis University, A.B., Ph.L.; Marquette University, M.A.
- George H. Nelson (1966) Associate Professor, Biology  
Wisconsin State University-Superior, B.S.; Colorado State University-Fort Collins, M.S.

- Orville Nelson (1963) Professor, Education and Psychology  
Stout State University, B.S.; University of Minnesota, M.A., Ph.D.
- Barbara Nemecek (1967) Instructor, Clothing, Textiles and Design  
Stout State University, B.S., M.S.
- John C. Neuenfeldt (1968) Instructor, Mathematics  
Wisconsin State University-River Falls, B.S.; Western Washington State College, M.Ed.
- Ruth Ellen Newman (1969) Instructor, Food Science and Nutrition  
University of Wisconsin, B.S.; King County Hospital, University of Wisconsin, Dietetic Internship
- Gerald W. Niedfeldt (1968) Instructor, Mathematics  
Wisconsin State University-LaCrosse, B.S.; University of Wisconsin, M.S.; Graduate Study
- Otto Nitz (1952) Chairman of the Department of Chemistry, Professor  
Elmhurst College, B.S.; University of Iowa, M.S., Ph.D.
- James R. Nowaskey (1969) Hotel and Restaurant Management  
Miami University of Ohio, B.S.
- Courtney W. Nystuen (1967) Instructor, Industrial Graphics  
St. Olaf College, B.S.; University of Minnesota, B.Arch.; Registered Professional Engineer
- K. T. Olsen (1947) Associate Professor, Wood Technics and Plastics  
Iowa State University, B.S., M.S.; Graduate Study
- Arnold E. Olson (1964) Associate Professor, Sociology  
Augustana College, B.A.; Stout State University, M.A.; University of Minnesota, Graduate Study
- Gene A. Olson (1965) Associate Professor, Biology  
Luther College, B.A.; University of Michigan, M.A.; St. Mary's College, South Dakota State University, Graduate Study
- Lawrence Richard Olson (1969) Instructor, Safety Education  
Stout State University, B.S., M.S.
- Harry Olstad (1967) Assistant Professor, American Industry Project  
Stout State University, B.S., M.S.
- Charlotte L. Orazem (1966) Assistant Professor, Clothing, Textiles and Design  
University of Idaho, B.S.; Colorado State University, M.E.; Colorado University, Western State College of Colorado, Southern Colorado State College, Graduate Study

- Don R. Ortle (1969) Assistant Professor, Electronics  
Mankato State University, B.S.; Stout State University, M.S.
- Donald E. Osegard (1969) Director of Admissions, Associate Professor  
Wisconsin State University-Eau Claire, B.S.; Stout State University,  
University of Missouri, Graduate Study
- William Owen (1961) Professor, Chemistry  
Colorado State University, B.S.; University of Denver, M.A.; Colo-  
rado State College, Ed.D.
- James F. Palmer (1969) Instructor, Education and Psychology  
Illinois State University, B.A.; University of Minnesota, M.A.
- Patricia Ann Patton (1968) Instructor, Home Management, Economics  
and Equipment  
Kansas State University, B.S.; Iowa State University, M.S.
- George S. Peltier (1966) Assistant Professor, Metals  
Central Michigan University, B.S., M.S.; Northern Illinois Univer-  
sity, Graduate Study
- John A. Perri (1966) Assistant Professor, Art  
Indiana State College, B.S., M.E.; Alfred University, M.F.A.
- Frank R. Pershern (1966) Associate Professor, Wood Technics and  
Plastics  
State Teachers College, St. Cloud, Minnesota, B.S.; Stout State Uni-  
versity, M.S.; Texas A&M University, Ed.D.
- Stennett B. Pierce (1965) Instructor, Physical Education  
Wisconsin State University-LaCrosse, B.S., M.S.
- Arnold C. Piersall (1960) Chairman of the Department of Wood Technics  
and Plastics, Professor  
Iowa State Teachers College, B.A.; Colorado State College, M.A.;  
University of Missouri, University of Wyoming, Colorado State Col-  
lege, Ed.D.
- Frederick A. Pope, Jr. (1967) Assistant Professor, Child Development  
and Family Life  
University of Illinois, B.S.; University of the South, B.D., S.T.M.
- Merle M. Price (1929) Dean of Students, Professor, Political Science  
St. Cloud State College, Diploma; University of Minnesota, B.A.,  
M.A.; Graduate Study
- Neal W. Prichard (1962) Professor, Industrial Teacher Education  
University of Minnesota, B.S., M.A.; Pennsylvania State University,  
Ed.D.

- Lynn L. Pritchard (1965) Instructor, Music  
Wisconsin State University—Eau Claire, B.S.; Colorado State College,  
M.A.; University of Minnesota, Graduate Study
- Walter A. Pruitt (1968) Director of Graduate Training—Vocational Re-  
habilitation, Associate Professor  
University of Denver, B.A., M.A.; Colorado State College, Ed.D.
- Cecelia Pudelkewicz (1967) Professor, Food Science and Nutrition  
Villa Maria College, B.A.; Pennsylvania State University, M.A.;  
Iowa State University, Ph.D.
- Henry J. Purchase (1968) Chairman of the Department of Hotel and  
Restaurant Management, Adjunct Professor  
Cornell University, B.S.; University of New Hampshire, M.Ed.
- Henry Redkey (1970) Visiting Professor, Vocational Rehabilitation  
George Washington University, A.B.; Ohio State University, M.A.
- Lynette Rehberg (1969) Instructor, Psychology  
Stout State University, B.S., M.S.
- Matthew Reneson (1949) Assistant Professor, Mathematics  
Fitchburg Teachers College, B.S.; University of Minnesota, M.A.;  
Wayne State University, Clark University, University of Missouri,  
University of Wisconsin, University of Illinois, Graduate Study
- Thomas E. Reynolds (1969) Assistant Professor, English  
University of Iowa, B.A., M.A., Graduate Study
- Charles F. Rhoads (1966) Assistant Professor, Power Technology  
Indiana State University, B.S.; Eastern Illinois University, M.S.;  
Oklahoma State University, Graduate Study
- Evelyn G. Rimel (1961) Professor, Education and Psychology  
University of Montana, B.A., M.A.; Syracuse University, Ph.D.;  
Merrill-Palmer Institute, Post Doctoral Study
- Joe A. Rinck (1968) Associate Professor, Power Mechanics  
Kansas State College, A.B., M.A.; Colorado State College, Ed.D.
- Linda V. Risley (1968) Instructor, Clothing, Textiles and Design  
Eastern Kentucky University, B.A.; University of Tennessee, M.S.
- Michael D. Ritland (1964) Associate Professor, Education and Psy-  
chology  
Luther College, B.A.; Colorado State College, M.A., Ed.D.
- Susan Roecker (1969) Slide Librarian, Art Department  
Stout State University, B.S.

- Charlotte L. Rose (1961) Associate Professor, Home Management, Economics and Equipment  
Olivet Nazarene College, B.S.; University of Illinois, M.S.; Graduate Study
- Jane Rosenthal (1962) Chairman of the Department of Home Economics Education, Director of Home Economics Education, Graduate College, Professor  
Stout State University, B.S., M.S.; Colorado State University, Ed.D.
- Ann L. Rudiger (1969) Instructor, Clothing, Textiles and Design  
Stout State University, B.S., M.S.
- E. Robert Rudiger (1952) Chairman of Department of Industrial Teacher Education, Director of Vocational Education, Professor  
Stout State University, B.S., M.S.; University of Missouri, Ed.D.
- K. L. Rue (1957) Assistant Professor, Physics  
University of North Dakota, B.A.; University of Minnesota, M.S.; Ohio University, Kansas University, Michigan State University, Graduate Study
- Philip W. Ruehl (1948) Assistant Dean of the School of Applied Science and Technology, Director of Technical Education, Professor  
Stout State University, B.S., M.S.; University of Minnesota, Ph.D.
- James J. Runnalls (1966) Professor, Wood Technics and Plastics  
University of Wyoming, B.S.; Colorado State University, M.Ed.; University of Missouri, Ed.D.
- Nelva G. Runnalls (1966) Associate Professor, Chemistry  
Nebraska State College, B.S.; Mankato State College, M.S.; University of Missouri, Ph.D.
- Lydia S. Rutkowski (1966) Assistant Professor, Economics  
University of Illinois, B.S., M.S.; Graduate Study
- John Sabol (1964) Associate Professor, Economics  
Michigan State University, B.A., M.A.; Ohio State University, University of Minnesota, Graduate Study
- John S. Salo (1969) Instructor, Mathematics  
University of Minnesota-Duluth, B.S.; Pennsylvania State University, M.Ed.
- Guy Salyer (1948) Professor, Education and Psychology  
University of Missouri, A.B., A.M.; University of Nebraska, Ph.D.; Columbia University, University of Minnesota, Post Doctoral Study
- Jeanne Salyer (1949) Assistant Professor, Clothing, Textiles and Design  
Kent State University, B.S.; University of Wisconsin, M.S.

- J. Anthony Samenfink (1969) Dean of the School of Home Economics, Professor  
Middlebury College, B.A.; University of Rochester, M.Ed.; Florida State University, Ed.D.
- Jack Sampson (1957) Chairman of the Department of Power Technology, Director of Industrial Arts, Professor  
University of North Dakota, B.S.; Stout State University, M.S.; University of North Dakota, Ed.D.
- Arnold Sax (1969) Director of Material Development Center—Vocational Rehabilitation, Associate Professor  
Bradley University, B.S.; University of Houston, M.Ed., Ed.D.
- Roger A. Schaefer (1969) Assistant Professor, Industrial Teacher Education  
Stout State University, B.S., M.S.; University of Missouri, Ph.D.
- Reinhard O. Schmidt (1967) Assistant Professor, Education and Psychology  
Wisconsin State University—Oshkosh, B.S.; Wisconsin State University—Superior, M.Ed.; University of South Dakota, University of North Dakota, Graduate Study
- William Schulman (1966) Instructor, Art  
University of Wisconsin—Milwaukee, B.S., M.S.
- August J. Schulz (1964) Professor, Safety Education  
Stout State University, B.S.; New York University, M.A., Ph.D.
- Robert N. Schunk (1967) Associate Director of Placement Services, Associate Professor  
Wisconsin State University—Stevens Point, B.S.; Northwestern University, M.A.; Boston University, University of Wisconsin, Graduate Study
- Philip J. Schwarz (1967) Assistant Librarian, Assistant Professor  
Wisconsin State University—Platteville, B.S.; University of Denver, M.A.; Stout State University, Graduate Study
- Lorry M. Sedgwick (1965) Director of American Industry, Associate Professor  
Kansas State College, B.S.; Southern Illinois University, M.S.; Purdue University, Ph.D.
- Hunter B. Shirley (1966) Associate Professor, Education and Psychology  
Louisiana College, B.A.; Baylor University, M.A.; Sorbonne University, Paris, France, Graduate Study

- Edwin Siefert (1949) Associate Professor, Industrial Graphics  
Stout State University, B.S.; Wayne State University, M.E.; Stout  
State University, Pennsylvania State University, University of Illi-  
nois, University of New York, Bradley University, Graduate Study
- Carol H. Siewert (1969) Assistant Professor, Clothing, Textiles and  
Design  
North Central College, B.S., M.S., Clothing and Textiles; Stout State  
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- Norma Skaar (1968) Instructor, Clothing, Textiles and Design  
North Dakota State University, B.S.; University of Wisconsin, M.S.
- Lee Harold Smalley (1965) Professor, Industrial Teacher Education  
State College of Iowa, B.S.; University of Maryland, M.Ed.; Michigan  
State University, Ed.D.
- Charles E. Smith (1968) Instructor, Safety Education  
Wisconsin State University-River Falls, B.S.(L.A.), B.S.(Sec. Ed);  
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- Robert D. Smith (1968) Instructor, Physical Education  
Wisconsin State University-LaCrosse, B.S.
- Zenon T. Smolarek (1966) Instructor, Industrial Technology  
Stout State University, B.S., M.S.
- George A. Soderberg (1945) Associate Professor, Wood Technics and  
Plastics  
Stout State University, B.S.; University of Minnesota, M.A.
- Lanore Sogard (1967) Assistant Professor, Child Development and  
Family Life  
Iowa State University, B.S.; Kansas State University, M.S.
- Wesley S. Sommers (1955) Assistant to the President, Professor  
University of Michigan, B.S.E., A.M.; Syracuse University, Univer-  
sity of Minnesota, Ph.D.
- Judy E. Spain (1967) Associate Director of Student Housing, Instructor  
University of Northern Iowa, B.A., M.A.
- Max Sparger (1959) Director of Athletics, Assistant Professor, Physical  
Education  
University of Dubuque, B.S.; Macalester College, M.Ed.; University  
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Ellendale State College, B.S.; Colorado State University, M.E.;  
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- Robert Spinti (1957) Chairman of the Department of Electronics, Professor  
Stout State University, B.S., M.S.; Pennsylvania State University,  
University of Missouri, Ed.D.
- Douglas D. Stallsmith (1966) Instructor, American Industry  
Miami University, B.S., M.A.
- Glenyce R. Stellmaker (1968) Instructor, Clothing, Textiles and Design  
Stout State University, B.S., M.S.
- John B. Stevenson (1966) Dean of the School of Education, Director of  
Guidance and Counseling, Professor  
Wittenberg University, B.S.; Hamma Divinity School, B.D.; Witten-  
berg University, M.Ed.; Ohio State University, Ph.D.
- Robert Swanson (1950) Dean of the Graduate College, Professor  
Stout State University, B.S., M.S.; University of Minnesota, Ph.D.
- Malcolm Sylvers (1969) Instructor, History  
Brooklyn College, B.A.; University of Wisconsin, M.A.; Graduate  
Study
- Raymond Szymanski (1968) Director for Research and Development Pro-  
posals, Assistant Professor  
Wisconsin State University-Stevens Point, B.S.; University of Minne-  
sota, M.A.; Graduate Study
- Charles L. Thomas (1966) Chairman, Graphic Arts Department, Pro-  
fessor  
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Study
- Robert J. Thompson (1969) Instructor, Physical Education  
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- Erik I. Thurin (1968) Assistant Professor, English  
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- Susan M. Thurin (1968) Instructor, English  
College of St. Benedict, B.A.; Indiana University, M.A.
- Renate C. Tietz (1969) Assistant Librarian in Charge of Acquisitions,  
Instructor  
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- Hans E. Timper (1967) Assistant Professor, Industrial Graphics  
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- John B. Tokheim (1967) Assistant Professor, English  
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University of Montana, B.A.; University of Denver, M.B.A.; University of California, University of Montana, Graduate Study
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Stout State University, B.S., M.S.
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Texas Woman's University, B.S., M.S., Ph.D.
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University of Wisconsin, B.S., M.S.

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Winona State College, Diploma; University of Minnesota, B.S., M.A.,  
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Stout State University, B.S.; Colorado State College, M.A.

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Oklahoma State University, B.S., M.S.; University of Missouri, Ed.D.

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Wisconsin State University-Stevens Point, B.S.; University of South  
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uate Study

Jack Wile (1968) Director of Development and Alumni Services  
Crinnell College, A.B.; George Williams College, Graduate Study

John A. Will (1965) Assistant Professor, Art  
State College of Iowa, B.A.; State University of Iowa, M.F.A.

Mary K. Williams (1954) Associate Professor, Art  
University of Wisconsin, B.S., M.A.; Graphis Lehr and Versuchanstalt,  
Hertha Buchner Keramics, Vienna, New York University, Chicago  
Institute of Design, University of Wisconsin, Chicago Art Institute,  
University of Illinois, Graduate Study

Anita Wilson (1966) Instructor, Food Science and Nutrition  
Kansas State University, B.S., M.S.

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Kansas State University, B.S., M.S.; University of Minnesota, Utah  
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Ohio State University, B.F.A., M.A., M.F.A.

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University of Minnesota, B.A., M.F.A.

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State University of Iowa, B.S., M.D.

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University of Minnesota-Duluth, B.A.; San Francisco State College, M.A.; California School of Fine Arts, Graduate Study

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University of Washington, B.A.; University of New Mexico, M.F.A.

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State College of Iowa, B.A.; State University of Iowa, University of Missouri, Graduate Study

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Carroll College, B.A.; University of Wisconsin, M.A.

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Stout State University, B.S., M.S.; University of Missouri, Ed.D.

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Rockhurst College, B.S.; University of Wyoming, M.A.; Kansas State University, University of Wyoming, Ph.D.

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Wisconsin State University-LaCrosse, B.S.

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Wisconsin State University-LaCrosse, B.S.; Northwestern University, M.A., Ph.D.

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University of Wisconsin, B.S.; Yale School of Art and Architecture, B.F.A., M.F.A.

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Stout State University, B.S., M.S.

## EMERITUS

Verne C. Fryklund, Ph.D. ....	President	(1945-1961)
Clyde A. Bowman, M.S. ....	Dean of the School of Industrial Education	(1919-1953)
Alice J. Kirk, Ed.D. ....	Dean of the School of Home Economics	(1947-1963)
Erich Richard Oetting, Ph.D. ....	Dean of the School of Education	(1945-1969)
Ray A. Wigen, Ph.D. ....	Dean, School of Graduate Studies	(1933-1966)
Keturah Antrim, Ph.M. ....	Physical Education	(1936-1965)
Freda M. Bachmann, Ph.D. ....	Biology	(1924-1939)
Gertrude L. Callahan, Ph.M. ....	English	(1927-1961)
Dwight D. Chinnock, M.A. ....	Industrial Teacher Education	(1940-1969)
Eleanor H. Cox, M.A. ....	Chemistry	(1942-1965)
Margaret Winnona Cruise, M.S. ....	Food and Nutrition	(1927-1947)
Fred L. Curran, M.A. ....	Industrial Education	(1908-1941)
Mabel Rogers Huggins, M.A. ....	Food and Nutrition	(1935-1947)
Lillian Jeter, M.A. ....	Clothing and Textiles	(1927-1961)
Ray C. Johnson, M.A. ....	Physical Education	(1938-1969)
Floyd Keith, M.S. ....	Metalworking	(1922-1961)
Mary Killian, M.A. ....	Director of Institution Management	(1947-1967)
Ray F. Kranzusch, M.S. ....	Mechanics	(1924-1964)
Harold C. Milnes, M.S. ....	Machine Shop	(1916-1954)
Ann Noble, M.S. ....	Home Economics Education	(1947-1963)
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Mrs. Benita Grote Smith, M.S. ....	Child Development	(1943-1967)
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## A

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